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COMPARISONS OF DECISION-MAKING STYLES OF FLORIDA COMMUNITY AND JUNIOR COLLEGE DEPARTMENT CHAIRPERSONS AND DIVISION DIRECTORS

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COMPARISONS OF DECISION-MAKING STYLES OF FLORIDA COMMUNITY AND JUNIOR COLLEGE DEPARTMENT CHAIRPERSONS AND DIVISION DIRECTORS

by

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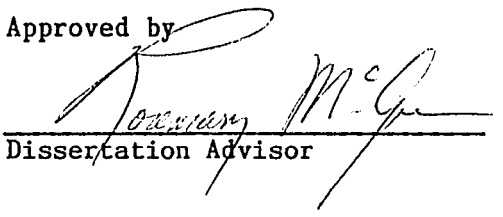

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APPROVAL PAGE

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The purpose of this study, involving community and junior college department chairpersons and division directors, was to determine and then compare the decision-making styles of administrators by participative and nonparticipative categories, by sex, and by discipline groups of physical education and non-physical education.

Community and junior college department chairpersons and division directors from the State of Florida, selected by stratified random sampling with equalization of sexes, indicated their preference of decision-making style for each of 30 cases involving problems in higher education based upon the Vroom-Yetton Model. The styles they could indicate were Autocratic I (0 scale value), Autocratic II (.625 scale value), Consultive I (5 scale value), Consultive II (8.125 scale value), and Group II (10 scale value). One hundred and eight chairpersons and directors responded, which was 74% of those who agreed to participate. Data were analysed using frequencies, means, t tests, ANOVA, and chi square.

Major Findings and Conclusions

1) Chairpersons and directors were consultive in their selection of decision-making style with a mean score of 5.37. Decision-making styles varied, however, and were contingent upon the situation or problem.

2) Chairpersons and directors were participative in their decision-making style preferences regardless of age, administrative experience, discipline, sex, or college or campus affiliation.

3) Male and female chairpersons and directors were not significantly different in their decision-making style selection regardless of age, administrative experience, discipline, or college or campus affiliation.

4) Decision-making styles of physical education chairpersons and directors and nonphysical education chairpersons and directors were not significantly different regardless of age, administrative experience, sex, or college or campus location.

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CHAPTER I

INTRODUCTION

Decision-making is a part of everyone's life. This study, however, will deal primarily with decisions made within organizations. Harrison (1975) cited that "there is a lack of universal agreement as to what constitutes a really good decision, and there is no generally accepted approach for managers to follow in pursuit of choices most likely to result in favorable consequences" (p.3). Although decision-making is an important responsibility of administrators, many do not have set procedures. Numerous articles, books, and papers have been written on this subject, most of the literature suggests procedures, models, or decision aids or presents theories. Workshops and training in decision-making have become popular in response to growing interest in effective techniques.

Decision-making is often placed on a continuum ranging from intuitive to highly technical and analytical. Intuitive is thought of as subjective and the formal or analytical as objective. Decision-making techniques can range from a hunch, to analysis of information and advice, to the use of statistics or computer simulation.

Braverman (1980) labeled intuitive decision-making as informal or formal. The informal intuitive type uses only information stored in the subconscious and is often called a hunch. The formal intuitive type involves analyzing facts and information available and deciding

by using one's own judgment. Cooper (1961) and Braverman (1980) indicated that a blend of intuition and analysis of data is used in all decisions. The blend, however, varies with the situation and the individual.

At one end of the continuum, people appear to use intuition entirely, yet apply facts which they have acquired in the past and stored in the subconscious. Cooper (1961) and Braverman (1980) have suggested these facts are stored and used during analysis. Often intuition is utilized by deliberating on a decision and then relaxing and releasing thoughts to the subconscious mind. At a later time, the decision comes forth unexpectedly. However, "Intuition will not work where there has been no prior experience" (Cooper, 1961, p. 265).

At the opposite extreme on the continuum is a decision process which supposedly is based on facts and perhaps determined by means of a highly analytical or quantitative method. Yet there is no guarantee that all the data or facts were acquired. In addition, the acceptance or rejection of facts usually involves intuition or subjective judgment, according to Braverman (1980). Dressel (1981) commented that the "use of facts may involve a value judgment" (p. 65). He suggested that values are used when analyzing and accepting facts for decision-making. Dressel (1981) further stated that "the relevence, accuracy and interpretation of data are value laden and the decision as to the appropriate action is even more so" (p. 67).

More recently, the literature has reflected a strong interest in the left brain and right brain functions in decision-making (Taggart & Taggart, 1983). The left hemisphere of the brain is analytical, while

the right hemisphere is creative and intuitive. Agor (1984) cited three management styles for making decisions: 1) left brain - used commonly by General Motors, the military, and the government; 2) right brain - used by Apple, Atari, and Walt Disney; 3) integrated - involves use of the left and right brain interchangeably and used commonly by MacDonalds, Proctor & Gamble, and Bechtel.

Barnard (1938) was ahead of his time as he spoke and wrote on the logical (left) and the nonlogical (right) mind. He indicated that the nonlogical mind is used more than realized to make decisions and is involved in most decisions that appear to be totally logical. A blending of both is generally desirable. Barnard (1938) stated that "the intuitional processes should be supplemented by the more conscious reasoning processes where feasible; but the practical necessities in many activities require chiefly the nonlogical process" (p. 313).

Numerous authors have suggested decision processes that involve step-by-step procedures for gathering and analyzing facts, then making and implementing the decision. The actual decision-making technique may range from a simple choice between two alternatives to the use of highly complex and technical decision aids such as the computer.

Open and closed decision models have been developed. The closed model is fixed and follows strict rules. On the other hand, the open model is flexible and more contingent upon the situation. The Vroom and Yetton model is an example of the contingency approach. In that model, as well as others, decision-making may involve one person or a group of individuals. The participatory nature of the decision-making

is dependent upon the situation and upon the person responsible for the decision.

Decision-making in higher education is unique as compared to the process in other formal organizations (Dressel,1981; Corson, 1979). Higher education decision-making tends to be intuitive or less structured and decisions are generally about people and dealing with people, whereas in business and industry where decision-making procedures are more quantitative, maximizing profits is the ultimate concern. This study will focus on decision-making in higher education.

Another major concern of this study is a comparison of males and females in decision-making. Since the early 70's and the advent of the women's movement, the literature has featured numerous articles, books, and papers concerning women in administration and management. Comparisons have been made between males and females focusing on sex-role stereotyping, traits, and leadership style, but not related to decision-making. More updated research is needed which compares male and female administrators. Since very little research has been conducted comparing males and females in academic administration, it would appear that this is a valuable topic for investigation.

Statement of the Problem

Purpose

The purpose of this study, involving community and junior college department chairpersons or division directors, was to determine and compare the decision-making styles of administrators by participative

and nonparticipative categories, by sex, and by discipline groups of physical education and nonphysical education.

Specfic Problems

1. What are the decision-making styles of community and junior college department chairpersons or division directors and are the styles contingent upon the situation?

(a) What are the decision-making styles according to age?

(b) What are the decision-making styles according to the length of time as an administrator?

(c) What are the decision-making styles according to discipline?

(d) Which style is characteristic of each college or campus?

2. How do community and junior college department chairpersons or division directors compare in participative and nonparticipative categories?

(a) What is this comparison in relation to age?

(b) What is this comparison in relation to length of time as an administrator?

(c) What is this comparison in relation to sex?

(d) What is this comparison in relation to discipline?

(e) Which decision-making category, participative or nonparticipative, is used most frequently on each college or campus?

3. How do the decision-making styles of male and female community and junior college department chairpersons or division directors compare?

(a) What is this comparison in relation to the total problem set and to each of the problems?

(b) What is this comparison in relation to high-quality and to low-quality problems?

(c) What is this comparison in relation to high-acceptance and to low-acceptance problems?

(d) What is this comparison in relation to the frequencies of decision style selection?

(e) What is this comparison in relation to age?

(f) What is this comparison in relation to administrative experience?

(g) What is this comparison in relation to discipline?

(h) What is this comparison in relation to college or campus?

4. How do the decision-making styles of physical education department chairpersons or division directors compare with department chairpersons or division directors in other disciplines?

(a) What is this comparison in relation to the total problem set and to each of the problems?

(b) What is this comparison in relation to high-quality and to low-quality problems?

(c) What is this comparison in relation to high-acceptance and to low-acceptance problems?

(d) What is this comparison in relation to the frequencies of decision style selection?

(e) What is this comparison in relation to age?

(f) What is this comparison in relation to administrative experience?

(g) What is this comparison in relation to sex?

(h) What is this comparison in relation to college or campus?

Definitions of Terms

The following terms are defined as they were used in this study:

Administration

"Direction, organization, and execution of the functions and activities of formal organizations, especially when purposes and objectives are imprecise" (Dressel, 1981, p. 215). An administrator is the person who has the responsiblity to handle these functions.

Management

The handling, directing, controlling or carrying on of business affairs of a precise nature in an organization. A manager is the person who carries out these acts.

Leadership

The act of helping a group interact in a way that facilitates the achievement of common goals. "Leaders induce followers to act for certain goals that represent the values and the motivations--the wants and needs, the aspirations and expectations--of both leaders and followers" (Burns, 1978, p. 19).

Decision

"A choice among alternatives or alternative courses of action that leads to some desired result" (Braverman, 1980).

Decision-making

Process of making a choice of alternatives in order to achieve a solution (may or may not involve problem-solving).

Problem-solving

Process of making a choice which resolves a problem.

Participative decision-making

Involving in the decision-making process one or more people other then the person ultimately responsible for the decision.

Group decision-making

A group of individuals involved in making a decision determined by either consensus or by majority vote.

Intuition

"Quick perception of the truth without conscious attention or reasoning" (Cooper, 1961, p. 264).

Intuitive decision-making

Using one's mental capacities and the knowledge and experiences stored in the subconscious mind to determine the decision.

Statistical/technical decision-making

Using a mathematical or computerized technique to make a choice in the decision-making process.

Models

"A simplified replication of reality that identifies its main components and usually indicates how they are interrelated" (Oxenfeldt, Miller, & Dickson, 1978, p. 31-2).

Vroom-Yetton model

A normative model for decision-making utilizing five styles.

These styles range on a continuum from 0-10 based on the amount of input from others. Seven rules for using the model are suggested and a decision tree is available to aid the decision process (Vroom & Yetton, 1973).

Values

"Normative standards by which human beings and organizations are influenced" (Harrison, 1975, p. 316).

Ethical

"Conforming to principles of human conduct" (Harrison, 1975, p. 310).

Underlying Assumptions

1. The five categories of the Vroom/Yetton model for decision-making and the scale value of each category are adequate to describe the style of decision-making for department chairpersons or division directors involved in this study.

2. The department chairpersons or division directors in this study will provide accurate information on their decision-making style rather than responding with what style they think should be used.

3. The population in this study is homogeneous and representative of community college department chairpersons or division directors.

Scope

The subjects for this study were department chairpersons or division directors in community and junior colleges in the State of Florida. Florida ranks with Texas and California as one of the three

states with the most extensive community/junior college systems in the United States. Florida was selected as the geographic location for the population of this study. Administrators at the department chairperson or division director level were chosen because they are involved at the grass-root level of the decision-making hierarchy. On some campuses within the Florida community/junior college system, department chairpersons are the administrators responsible for one discipline area at the basic administrative level. In other institutions, division directors administer one or more discipline areas at the grass-root level.

This study examined only the decision-making styles of department chairpersons and division directors. This examination provided information concerning the decision-making styles of certain subgroups. These subgroups included males and females, plus chairpersons or directors of physical education and other disciplines. In addition, decision-making styles by age, by length of time as an administrator, and by college or campus affiliation were considered. Although it is recognized that values, religious beliefs, political affiliation, economic status, family background, as well as other imponderables influence decision-making, this study did not attempt to examine these influences. Neither was the influence of college or campus size or subordinate group size on decision-making examined in this study.

Significance

Research involving decision-making of administrators has been sparse, particularly in education. Jago (1982) cited the leadership process as a relatively uncharted area of research. The Vroom/Yetton model was cited in Stogdill's Handbook of Leadership (Bass, 1981) as a model which should be significantly involved in leadership and administration research during the 1980's.

Also, more research is needed which compares males and females in administrative roles. Since women have been more involved in administration, generally, beginning with the early 70's, it has been speculated that changes may have occurred in female execution of that role (Benton, 1980; Yoder & Hollander, 1980). Limited research has been conducted which compares the decision-making of male and female administrators in education or in other formal organizations. This study can contribute to the research in that area.

CHAPTER II

REVIEW OF LITERATURE

The review of literature first discusses elements of decision-making including theories, models, procedures, and techniques or aids. Since this study focused on participative decision-making, decision-making in higher education, and males and females in decision-making, discussion in these areas is included. The final portion of the review elaborates on the Vroom-Yetton model. Because the instrument for this study was derived from this model, it was important to report on the model separately and in depth.

Elements of Decision-Making

Theories

Most references to decision theories indicate that "the cornerstone of decision-making theory is the objective of determining the best course of action in a situation" (Rich, 1974, p. 27). Decision-making theory is concerned with making decisions under conditions of uncertainty. Another school of thought exists, however, which indicates that decision-making strives to determine what will satisfy a certain aspiration rather than maximize or achieve the highest attainable solution (Simon, 1959). White (1976) defined decision theory as "a formal synthesis of the behaviors of object and subject systems with a view to producing closed form computable systems" (p. 14). Potter (1983) believed that the application of

decision theory may involve such difficulties as (a) estimation of prior probabilities, (b) estimation of new information impact, and (c) estimation of the values of alternatives. Several decision theories will be described briefly in order to reflect the scope and diversity of the topic.

Probability theory. In the objective type of probability theory, "an event occurs often which helps determine the probability of reoccurring" (Harrison, 1975, p. 221). Examples include the theory developed by Van Neuman and Morgenstern (White, 1976) which involves probability descriptions of the decision situation and an expectations theory credited to Markowitz (White, 1976) in which preferences are expressed in terms of expectations.

In the subjective type of probability theory, the likelihood of the event occurring is based on the belief of the decision-maker or on personal experience (Harrison, 1975). One example is the theory designed by Savage (White, 1976) which assumes no prior probability descriptions of situations and relies on decision-makers to use subjective probability characteristics.

Utility theory. This theory is based on maximizing behavior. "The decision-maker always chooses what will have the greatest amount of satisfaction or what is the highest attainable to satisfy the objective" (Harrison, 1975, p. 221).

Game theory. "A technique for making decisions in situations of conflict.... Must plan for the best possible return while taking into account the possible actions of the opponent" (Harrison, 1975, p. 241). One example is a two-person, zero sum game where if one person

gains, the other loses. Another is a two-person nonzero sum game where both can win and the winning of one does not negatively affect the other.

Bayesian decision theory. This is an approach which maximizes chances of achieving the most successful performance by outlining a decision-making strategy for selecting the best possible choice. It involves numerically weighting the possible payoff and probability of occurrence for each possible event and assessing the possible gain or loss involved in choosing each course of action (Newman, 1971).

Decision-making theories are applied within models when designing the decision-making plan to be used for a particular purpose or setting. A discussion on models is presented next.

Models

Decision-making has been divided into closed decision models and open decision models. The closed model is used in economics and statistical decision situations and is known for helping companies to increase profits. Generally routine or recurring decisions that are highly programmable would qualify to use the closed model. The open model is more flexible and humanistic. It is used for most decision situations including some routine or recurring decisions as well as nonroutine or unprogrammed decisions. A description of both models is quoted by Harrison (1975) which identified some of their unique characteristics:

Closed decision model.

1. A fixed or relatively unchanging objective.

2. A known set of relevant alternatives with corresponding outcomes.

3. An established rule or set of relations that produces a preference ordering of alternative.

4. The maximization of some sought end such as profits, income, physical goods, or some form of utility.

5. General disregard for environmental constraints (pp. 63-64).

Open decision model.

1. Dynamic objectives and aspiration levels.

2. Alternatives and outcomes are not predetermined and neither are the relations between them.

3. A search considers fewer than all alternatives because of imperfect information, time and cost constraints, and cognitive limitations of the decision-maker.

4. A quest is made to find an alternative or combination of alternatives whose choice will satisfice an aspiration level or the original objective.

5. Characterized by openness to the environment (p. 71).

One of the popular examples of open models used in business is described next.

Competitive gaming models. Decision models that are of this type help to improve decision-making through portrayal of realistic situations in a seminar or classroom atmosphere. Games involve marketing, finance, production, or banking. Situations are described, a decision is made, then results and reactions to the decision are

examined and evaluated as if the setting were realistic (Knotts & Swift, 1978).

Models used in higher education are generally open since the concern is for determining the best possible solution for the situation or satisficing rather than for maximizing profits, income or utitilities. Some examples of decision-making models used in higher education are cited briefly for illustrative purposes.

CAMPUS (Comprehensive Analytical Method for Planning). This is a simulation model requiring an extensive information system which aids in the planning process. CAMPUS can be used to plan a new institution or expand an existing one (Andrew & Alexander, 1973; Foreman, 1973; Krampf & Heinlein, 1973).

RRPM (Resource Requirement Prediction Model). RRPM is "primarily a cost simulation model that calculates the costs associated with a set of academic programs and the resources required to operate them. The model is also capable of responding to 'what if' questions, indicating the effects of policy changes" (Krampf & Heinlein, 1973, p. 91).

PPBS (Planning, Programming, and Budgeting Systems). PPBS has focused on reform of the decision-making process. It involves output orientation, multi-year planning, program analysis and cost benefit studies (Schroeder, 1973; Van Dusseldorp, Richardson & Foley, 1971).

Goal programming model. This model is a multidimensional extension of linear programming. It is used for academic resource allocations such as salaries, admissions planning, and scheduling problems (Lee & Moore, 1973).

Departmental model. This model is "concerned with the allocation of faculty effort among various activities given an exogenous budget for personnel in terms of Full Time Equivalent positions" (Dyer, 1973, p. 109).

The procedures for decision-making used within these models may vary according to the individual or the instututions. Various procedures are examined next.

Procedures

Some books and articles written on decision-making emphasize step-by-step procedures for gathering and analyzing facts and then making and implementing the decision. Several procedures have been suggested and are described briefly.

Harrison (1975). Administrators first set organizational objectives, and then search for decision-making alternatives. The alternatives are compared and evaluated and a choice is made. Finally, the decision is implemented and a follow-up investigation is conducted.

Arnold (1978). Administrators smoke out the issues concerning the needed decision, state the purpose of the decision, and set the criteria for decision-making. Priorities are established and a search is made for solutions. A decision is made after testing the alternatives and troubleshooting possible decisions.

Elbing (1978). Administrators perceive the environment and diagnose the issues. From this information, the problem is defined and a solution is selected. Then the solution is implemented.

Hill (1978). Administrators define the problem and both identify and quantify alternatives. Decision aids are applied and a decision is reached. The final step involves implementation of the decision.

Bay (1981). Administrators first consult goals of the organization and gather all the facts regarding the problem. Then they analyze the problem, evaluate the consequences, and map a general strategy for decision-making. A decision-making team is organized, criteria are developed, and resourses are identified. The team brainstorms and evaluates creative alternatives and then tests the decision. Finally, the administrators sell the decision, prepare for implementation, and implement the decision.

These examples of step-by-step decision-making procedures are dynamic and cyclical rather than fixed or perhaps stagnated. Once the decision is implemented, it is analyzed to determine if revisions or changes are needed. If so, the entire decision-making procedure commences once again.

Just as procedures are necessary to implement models, techniques and aids have been developed to help expedite the procedures. They are an important part of decision-making procedures and are worthy of presentation.

Techniques and Aids

The literature describes numerous techniques and aids to assist in decision-making. The technique of actually making the decision may be either relatively simple, highly complex or technical dependent on the decision aids selected for the situation. Harrison (1975)

suggested that decisions may be divided into category I and category II types which parallel open and closed models. Category I decisions are routine and recurring and have also been called programmed or generic. Many steps in the decision-making procedure are eliminated, and the decision technique may be simple. Category II decisions are nonroutine and, therefore, an entire decision-making procedure may be used or a more complicated or highly technical decision technique may be applied. This type has also been called creative, unprogrammed, or unique decision-making.

Several examples of decision-making techniques and aids are given for illustrative purposes.

Checklisting. This technique prepares "an exhaustive list of factors that bear on the results of the decision" (Braverman, 1980, p. 23). Checklisting is helpful in a simple situation and is most effective in a "go/no go" situation. The checklist is used as a countdown. If all items are checked off the list, the decision will be positive. If one or more items are not favorable, however, the decision will be negative. This technique does not weigh each factor according to importance and is most suitable in a simple situation of two alternatives.

Rating or priority systems. These systems involve ranking alternatives or assigning values to the alternatives (Braverman, 1980). These work best in a situation that recurs rather than in a one-of-a-kind decision. It is necessary to establish a criterion for ranking or rating. The decision reflects the highest rating or priority.

Brainstorming. Brainstorming involves creative problem solving to seek new alternatives (Braverman, 1980). Participants attempt to generate as many ideas as possible. All ideas are included with no criticism regardless of how outlandish they may be. Members are encouraged to add to and elaborate on the ideas of others. The objective is to cultivate synergistic action among group members to yield a result greater than one which a single individual would have produced.

Synetics. Synetics is a technique which "attempts to find a solution by looking at the problem in new and previously unthought-of ways" (Braverman, 1980, p. 30). This creative method brings together a small group of people with specific expertise needed to help solve the problem and is geared more toward problem solving than decision-making.

Delphi Method. The Delphi method structures group communication or information to aid in decision-making without members meeting face to face (Braverman, 1980; Rasp, 1973). The technique is highly structured and divided into four phases. In the first, which is exploration, each participant provides pertinent information which is obtained often by means of a questionnaire or survey. Second, a monitoring team reviews the responses and attempts to understand the group views. An alternative is to use a computer to analyze the information rather than a monitoring team. If disagreement occurs, phase three is designed to reconcile the differences. Finally, group information and evaluation is sent to the participants for further

consideration. The procedure is repeated, typically three times, until a solution is reached.

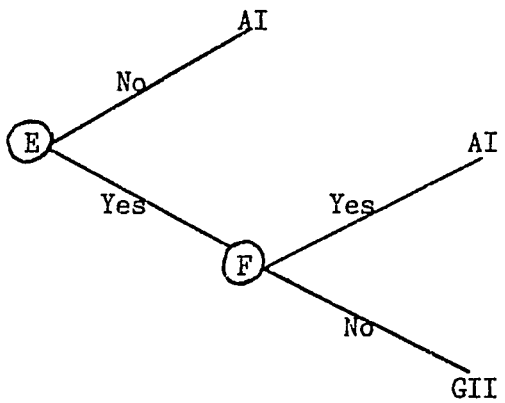
Decision tables. These tables display visually all possible conditions that are needed to make a decision. Action is shown for each combination or condition. These are used for recurring decisions, rules, or policies (Van Dusseldorp, Richardson & Foley, 1971).

Decision matrix. A decision matrix analyzes choices according to various criteria. A weighting factor is determined for each of the criteria. Then the criteria for each alternative are ranked by multiplying the rank times the weighting factor and adding the results. Thus, a numerical value is determined for each alternative. The alternative with the highest value would be the first decision choice (Hill et al., 1978).

Decision tree. A decision tree displays the anatomy of a decision with paths to follow (Harrison, 1975; Kepner & Tregoe, 1963; Vroom & Yetton, 1973). This technique is used when the possible answers or solutions are predetermined. Checkpoints are encountered on the path to the answer or solution. At these checkpoints, a rule is applied or a question asked. The choice of the next path to follow is dependent upon the rule or answer. After one or more checkpoints, the decision is reached. An example is given below which is a portion of the Vroom-Yetton decision tree (see Figure 1).

Rule E. Is acceptance of decison by subordinates critical to effectiive implementation?

Rule F. If I were to make the decision by myself, is it reasonably certain that it would be accepted by my subordinates?



(AI) Autocratic I. You make the decision yourself with information available to you now.

(GII) Group II. You share the problem with subordinates and attempt to reach a consensus solution.

(Vroom & Yetton, 1973, p. 39)

Figure 1. An example of a decision tree

Payoff tables. Payoff tables provide a mathematical aid to decision-making (Braverman, 1980; Harrison, 1975, p. 234). Across the top of a payoff table are available alternatives or acts with a symbol or brief description for each. In the left column of the table are states of nature or uncontrollable factors. The list of acts and the list of states should be mutually exclusive and all inclusive. Planning these lists helps the decision-maker analyze the situation thoroughly. In the body of the table are the consequences of each act for each state. These consequences are usually numerical, such as profit. They are clear and concise and serve to aid the decision-making process (see Figure 2).

STATES	ACTS			
	High Bid	Moderate Bid	Low Bid	No Bid
SM gets contract	$400,000	$300,000	$200,000	$0
SM doesn't get contract	-$ 90,000	-$ 90,000	-$ 90,000	$0

Figure 2. An example of a payoff table

Statistical techniques. Mathematical or statistical techniques are used to analyze data for decision-making (Braverman, 1980; Knotts & Swift, 1978). Examples include using linear equations to show profit relations or break even points. Tests of probability aid in determining the likelihood that an event will occur in the future based on frequency data from the past.

Computer simulation. Through use of a computer or microcomputer, decisions are inserted and the results or consequences are simulated on the screen. This would show drawbacks as well as positive results. Competitive gaming models are used which illustrate the effects of decisions made by the participants. Simulation of complete operating systems are popular. These are used to forecast sales levels, inventory, expansion of assets, and profits (Knotts & Swift, 1978).

Checklisting, rating or priority systems, and brainstorming techniques are the most popular because they are easy to apply. The Delphi Method is time consuming but is being utilized more. Decision tables, decision trees, payoff tables, and computer simulation are not difficult to use, but require some training. Statistical decision techniques and decision matrices require more background than the average administrator would probably have. Elbing (1978) remarked that the usefulness of each technique depends on the situation, needs, and whether the variables need to be quantified or not. Techniques such as payoff tables, statistics, computer simulation, and decision matrices would be utilized if quantification were desired or appropriate for the data or information which were available. Techniques such as checklisting, rating or priority systems,

brainstorming, synetics, and the Delphi method are used most often when dealing with human behavior.

Participative Decision-Making

Decision-making often depends on the style of the administrator. If the decision maker is authoritative or autocratic, less input will be sought when making decisions. If, however, the decision maker's style is democratic, either opinions and information may be requested from subordinates or a group decision may be sought.

Decision-making may also be contingent upon the situation. For example, a proponent of participative decision-making may find that, in routine decisions or decisions that must be made quickly, subordinate input or a group decision may be neither necessary nor feasible. It may be more expeditious or feasible for the decision maker to use available facts and information or past experience as a guide (Vroom and Yetton, 1973).

According to Hersey and Blanchard (1977), subordinates may not be experienced or have knowledge in a particular area, nor have the desire to participate in decision-making in a specific situation. The administrator, therefore, must regard each situation as unique and choose an appropriate style of decision-making.

The literature over the past 20 years reflects an interest in participative (also called participatory) decision-making or group decision-making. The Japanese were forerunners with this idea. They used quality circles successfully in business and industry (Bay, 1981). Quality circles are groups of workers delegated with the

responsibility to solve problems, to develop innovative ideas, and, therefore, to participate in decision-making.

In a review of research conducted by Heller (1971), he indicated that no conclusive evidence exists to indicate that participative decision-making is better than any other. Meyer (1970), when comparing participative decision-making with nonparticipative decision-making, reported conflicting results on which type was superior. Harrison (1975) also made reference to the disagreements as to whether group or individual decision-making is more effective. According to Heller (1971), however, numerous sources indicate the superiority of participative decision-making without conclusive evidence. Survey research has concluded, usually, that democratic leadership results in high output. On the other hand, experimental research does not show the same results (Heller, 1971). Harrison (1975) reported some studies which suggest that group decisions are more risky. Meyer (1970) suggested that researchers should stop trying to prove or disprove the superiority of participative decision-making over individual decision-making and instead focus on the parameters of participative decision-making effectiveness. Regardless of which is better, Harrison (1975) reported that group decision-making is on the increase in organizations of all types. Assets of group decision-making have been described by Harrison (1975):

1. Greater sum total of knowledge or information.
2. Greater number of approaches to a problem.
3. Participation in decision-making increases general acceptance of the final choice.

4. Better comprehension of the decision (p. 199).

Liabilities of group decision-making seeking have also been summarized by Harrison (1975):

1. Social pressure.
2. Acceptance of solutions.
3. Individual domination.
4. Winning the decision (p. 200).

Marks (1978) reported that the use of participative decision-making has been a pressing issue in community colleges. This is because community colleges were modeled after secondary schools rather than four-year colleges and universities in which each discipline area is autonomous. However, recent threats to autonomy have caused four-year institutions to develop support for and interest in participative administration.

Decision-Making in Higher Education

Higher education operates differently from government, industry, and business, according to Dressel (1981). The tendency in higher education has been for decision-making to be intuitive or less structured. Quantitative processes are used most often only when determining the budget. Sheehan (1984) reported that less than half of the universities in the United States and Canada use computer simulation for planning and budgeting and only one third use information technology gathered by institutional research departments. Educational decisions are generally about people and dealing with

people. While in business and industry, maximizing profits is the ultimate concern for decision-makers.

Dressel (1981) commented that "decisions in higher education are seldom decisive either in time or in application. Many decisions, policies, and rules exist on record, have never been altered or revoked, and have merely been forgotten" (p. 58). Cohen and March (1974) indicated that institutions of higher education are ambiguous, which makes decision-making difficult compared to other formal organizations. They stated that decision-making in higher education resembles a "garbage can into which various problems and solutions are dumped by participants...until a choice opportunity appears (defined as an occasion when a decision must be produced)" (Cohen & March, 1974, p. 81).

Institutions of higher education ideally operate in a collegial atmosphere. Faculty members maintain autonomy and claim the right to academic freedom. In addition, they expect to be responsible for certain administrative aspects of the institution, particularly in the hiring of faculty, evaluating faculty for promotion and tenure, and academic matters such as curriculum development. Institutions vary as to the amount of and the areas of faculty participation in decision-making. However, lower-level participation in decision-making, although limited to certain areas, is more prevalent in higher education than in business and industry. In a study by Dufty and Williams (1979), they indicated that academic department heads tend to use participatory and power-sharing procedures more than industrial heads.

Corson (1979) explained the differences in the decision- making in higher education and other formal organizations. Product line decisions involving course content, programs, and personnel in institutions of higher education are made by the faculty. On the other hand, in business, top-level executives make decisions on manufacturing and marketing products and on selecting and promoting personnel. Financial decisions in colleges and universities and in business and industry are highly centralized. However, in higher education, financial decisions are often influenced from without by donors and legislative bodies.

Marks (1978) indicated that a reform movement is taking place in higher education. He reported that some institutions advocate rational, empirically based decision-making which promotes centralization but answers to accountabilitiy. Others stress a balance between the needs of individuals working in and affected by the institution and the needs of the institution. Marks (1978) claims this balance is found in participative decision-making which promotes decentralization.

The American Association for Higher Education Task Force categorized 5 zones of decision-making authority in higher education. These 5 zones were described by Millet (1968):

Administrative Dominance

Administrators make decisions unilaterally with little or no faculty input.

Administrative Primacy

Administrators allow for some faculty consultation or

opinions, but make decisions regarding their own recommendations as primary.

Shared Authority

Both faculty and administrators influence decision-making.

Faculty Primacy

Faculty members are the primary decision-making group.

Faculty Dominance

Faculty members have all the decision-making authority (p. 6).

Administrative dominance, according to a survey, was used 24% of the time in higher education. Administrative primacy reportedly was used 50% in higher education with shared authority being used 25% (Millett, 1968, p. 6).

Barnard (1938) stated that often organizations have a particular way of making decisions. The organizational way of making decisions may differ from the method an individual would prefer. For instance, organizational decisions tend to be more logical than individual decisions and the responsibility or authority to make the decisions is delegated to various levels. Therefore, an administrator would be required to follow the organizational way.

Males and Females in Decision-Making and Administration

Generally, there have been two types of comparison research focusing on females and males as leaders or administrators. One type involves males and females selected from the general population and placed in the role of leader or administrator in a laboratory setting.

Their performance in these roles was studied and compared by sex. The second type of research compares males and females serving in the role of leader or administrator in real life (Yoder & Hollander, 1980).

Early comparison research focused on sex role stereotyping and traits of a good administrator most of which had been categorized previously as masculine. Putnam and Heinen (1978) and Bass (1981) pointed out that the trait theory in leadership had been explored in the first half of this century with no conclusive evidence. Comparison research involving traits, therefore, would not be conclusive since leadership traits are generally contingent upon the situation.

Because of sex-role stereotyping, a leader or administrator often has been labeled as successful because the person was male. A study by Bartol and Butterfield (1976) suggested this when they reversed male and female names for behavioral descriptions and persons with male names were chosen as better leaders or administrators.

Research in the early 70's indicated that women were more relationship oriented and men were more task oriented in their style of leadership or administration (Chapman, 1975). Bass (1981) reported that a difference in male and female attributes was seen as leaders emerge, but the differences blurred once leaders were involved in that capacity for a period of time.

Hennig and Jardim (1976) remarked that since most women administrators have not grown up with teamsport opportunites or orientation, they tend to try to do everything themselves and delegate little or no responsibility to subordinates. This would tend to

indicate that females might have less tendency than males to engage in a participative management style. A parallel thought could be that physical educators, having a teamsport background, might also tend to be more participative in decision-making.

A survey in academic administration conducted in 1979 by Benton (1980) showed a different portrait of female administrators than those of a decade earlier. These new female administrators were not typically conservative and single. They had worked their way up through the organization and could not be classified as "Queen Bees" who look like women but think like men. They had resolved the inner conflict between their personal and professional lives and were not considered outsiders in the "good old boys" system. These new female administrators merit further investigation to determine how they function as administrators and if differences exist now in administrative styles used by males and females. Marshall and Heller (1983) commented that, in education, "women are changing the decision process; they are becoming more involved in education issues; they are attempting to increase public involvement in education policy decisions; and they are rejecting traditional definitions of management and governance" (p. 32).

Psychological research prior to 1962 reflected a difference in personality traits between males and females. A difference also appeared in problem-solving or decision-making when it was specific to either the male or female role. However, research findings suggest that "where problem-solving or decision-making task is either equally associated with, or novel to, both male and female roles, no sex

differences should be found" (Brim, Glass, Lavin & Goodman, 1962, p. 133).

Gilligan (1982) reported that recent psychological research on developmental stages of females has shown a difference from that of males. Female orientation is toward attachment and interdependence following a web of interconnection. Male orientation is toward separation and independence with a hierarchical ordering. Gilligan (1982) proposed that the developmental differences of the sexes would have a profound effect on their judgment and decision-making and could cause a difference.

Yoder and Hollander (1980) indicated that psychological literature is contradictory about whether males or females are equally effective leaders or administrators. They found gender differences in research which studied the general population by placing people in artificial leadership and administrative situations. No differences were found between the sexes in research involving those in a leadership or administrative role.

In a recent survey conducted by Agor (1984) in California, Florida, and Michigan, women scored higher in right-brain usage during decision-making than men and preferred an integrative style (right and left brain used interchangeably) more than men. Female scores were more similar to the scores of top managers than scores by men.

Much of the research involving males and females has been biased by societal expectations that males should be leaders or administrators and that females are not expected to be successful in that role. An important consideration, however, is that most tasks

used in research tend to be sex typed. This variable should be neutralized in research to determine a clearer picture.

Vroom and Yetton (1973) developed a model which has been used in decision-making research. This model and the research instruments that have been developed based upon this model are not sex typed and, therefore, are suitable for studying male and female differences or similarities.

Vroom-Yetton Decision-Making Model

The Vroom and Yetton (1973) model is presented here, and in more detail, instead of earlier with other models, because it is the model of focus for this study. Decision-making is categorized into five styles dependent upon the amount of input or participation from others. The style selected for each decision is contingent upon the situation or problem. The five styles were labeled and described by Vroom and Yetton (1973):

AI (Autocratic I)

You solve problem or make decision yourself using information available to you at the time.

AII (Autocratic II)

You obtain necessary information from subordinates, then decide on solution to problem yourself. You may or may not tell your subordinates what the problem is in getting information from them. The role played by your subordinates in the decision is clearly one of providing the necessary

information to you rather than generating or evaluating alternative solutions.

CI (Consultive I)

You share the problem with relevant subordinates individually, getting their ideas and suggestions without bringing them together as a group. Then you make the decision, which may or may not reflect your subordinates' influence.

CII (Consultive II)

You share the problem with your subordinates as a group, obtaining their collective ideas and suggestions. Then you make the decision, which may or may not reflect your subordinates' influence.

GII (Group II)

You share the problem with your subordinates as a group. Together you generate and evaluate alternatives and attempt to reach agreement (consensus) on a solution. Your role is much like that of a chairman. You do not try to influence the group to adopt "your" solution and you are willing to accept and implement any solution which has the support of the entire group (p. 13).

These five styles were designed by Vroom and Yetton (1973) for addressing group problems in an organizational setting. The additional styles of Group I and Delegative I were designed for addressing individual problems, but are not pertinent to this study and are, therefore, not included for discussion. The five styles of

decision-making for group problems are placed on a continuum based upon the amount of subordinate participation, and scaled:

AI	AII	CI	CII	GII
0	.625	5.0	8.125	10

(Vroom & Yetton, 1973, p. 67).

Therefore, an individual's decision-making can be numerically rated from 0-10 dependent on the amount of participation requested of subordinates. In order to determine this ordered metric scale, 597 managers were asked to rank the 5 decision styles according to the frequency with which they used the styles in their jobs. A set of rank orders was established. This information was tested using a procedure devised by Coombs (1964) which determined if an underlying scale existed. Once the existence of an underlying scale was established, AI and GII, the extreme styles, were assigned 0 and 10 on the scale and the other values were set using an algorithm developed by Frank Goode (Coombs, 1964). Coombs (1964) suggested this method for using rank order data to establish unidimensionality of a scale and to assign scale values. The ordered metric scale developed by Vroom and Yetton (1973) was also compared to metric and numeric scales for the same data and the scales corresponded very closely. Vroom and Yetton selected the ordered metric scale over an equal interval scale in order to differentiate better the differences that existed among the intervals. The scale values were further checked and upheld using

75 master's level administrative students and 207 managers (Vroom & Yetton, 1973).

Vroom and Yetton (1973) indicated that there is not one best way to decide; instead, each situation should be assessed for the appropriate method. They suggested 7 rules to help guide decision-making:

1. Eliminate choice AI when solution quality is important and the leader lacks information.

2. Eliminate GII if quality is important and subordinates do not share organizational goals.

3. Eliminate AI, AII, and CI when quality is important, the leader lacks information, and the problem is unstructured.

4. Eliminate AI and AII if subordinate acceptance of the solution is critical.

5. Eliminate AI, AII, and CI if subordinate acceptance is critical and subordinates are likely to conflict about the solution.

6. Eliminate AI, AII, CI, and CII if acceptance but not quality is critical.

7. Eliminate AI, AII, CI, and CII if acceptance is critical and subordinates share organizational goals.

Development of the Vroom-Yetton model began in 1968 for the purpose of constructing a normative model based upon empirical evidence about participation in decision-making that would be easily understood and practical to use. It was based on the premise that different styles exist and that administrators use various styles dependent upon the situation. Vroom and Yetton were primarily

interested in decision-making within organizations and the social process of involving subordinates in decision-making. Seven revisions of the model took place prior to its first publication in 1973. This model corresponds to earlier administrative or leadership models (see Table 1).

Validation of the model was initiated by Vroom & Yetton (1973). Later, several other studies were conducted in business and in educational settings to validate the model (Vroom & Jago, 1974; Jago, 1978; Vroom & Jago, 1978; Magerson & Glube, 1979; Hill, 1979; Jago & Vroom, 1980). Many of the validation studies involved the determination that use of the model would improve decision-making. The model was tested by asking administrators to describe a problem in which they arrived at a successful decision and a problem where the decision was unsuccessful. They described their decision style according to the five styles in the Vroom-Yetton model. They then learned the seven rules of the model and applied them to their two problems to arrive at a decision. Typically their successful decision followed the seven rules and the unsuccessful ones violated one or more of the rules. Hill's validity test in 1977 supported the descriptive properties of the model. Research of Vroom & Jago (1978) involved 96 managers who indicated their decision-making style on the problem set and on their own problems. The managers then determined the effectiveness of their decision-making using the 7 rules of the Vroom-Yetton model. Results demonstrated concurrent validity of the model.

TABLE 1

Comparison of Vroom-Yetton Model to Other Models

Earlier Models	Vroom-Yetton Decision-Making Styles				
	AI	AII	CI	CII	GII
Lewin, Lippitt & White 1939	Autocratic Leadership				Democratic Leadership
Maier 1955	Autocratic Management		Consultive Management		Group Decision
Tannenbaum & Schmidt 1958	Manager makes decision, sells decision, gives ideas & asks questions		Manager gives decision-can change, gives problem, seeks input to make decision		Manager defines limits & seeks group decision, permits group decision with limits
Likert 1967	Exploitive Authoritative, Benevolent Authoritative		Consultive		Participative Group
Heller 1971	Own decision & explanation or no explanation		Consultation with subordinates		Joint Decision-making

This model can be used for describing the decision style of an administrator. Through use of the rules, it can also serve to improve decision-making. The Vroom-Yetton model is used extensively by Kepner-Tregoe Associates Inc., Princeton, New Jersey primarily in business and industry. Kepner-Tregoe provide a decision-making profile for an individual (see Appendix B) and also train the individual to use the 7 rules of the Vroom-Yetton model to improve decision-making.

Vroom and Yetton developed a decision-making problem set by polling administrators and managers in business and industry requesting problems frequently encountered in their roles. The set was comprised of the most common problems encountered. The 30 problems depict managers and administrators at various hierarchical levels and present an acceptance requirement or a quality requirement. "These sets of cases, or problem sets, were developed in accordance with a multi-factorial experimental design, within which problem attributes were varied orthogonally" (Vroom & Jago, 1974, p. 755). They were tested by expert judges to be certain that each of the problems comformed to the specifications of the Vroom-Yetton model. Construct validity was established by Vroom & Yetton (1973) and they suggested that the problem set could be used in research to answer numerous questions: "1) How do leadership styles vary among cultures and subcultures? 2) In what kinds of organizations does one find the most participative leadership styles? 3) What factors influence the leadership style that people acquire?" (Vroom & Yetton, 1973, p. 135)

The reliability of using the problem set for determining a mean level of participation was found to be .81 (Vroom & Yetton, 1973, p. 130). The reliability was achieved by dividing the problem set into two groups of odd and even numbered cases and using the data supplied by 306 persons. Answers for the odd and even numbered cases were correlated and corrected by the Spearman-Brown Prophecy Formula. Kepner-Tregoe copyrighted the problem set shortly thereafter to use in describing decision styles of leaders, managers or administrators. The set is also used by Kepner-Tregoe for training in decision-making.

Taylor (1982) selected, over a two-year period, a list of actual problems encountered by chairpersons and other administrators in higher education. He constructed 30 higher education problems similar to those used in the Vroom-Yetton problem set. An expert at Kepner-Tregoe confirmed that the educational problem set contained the same content validity as the Vroom & Yetton problem set.

Stogdill's Handbook of Leadership cited the Vroom-Yetton model as the key research model for the 1980's. Taylor (1982) published the first study using this model in an educational setting. He received answers to the educational problem set from 107 higher education chairpersons in the state of Virginia. His study reported that a consultive style was characteristic of this population. The mean decision style was 5.47. He also provided information on characteristic decision styles as affected by the seven rules and on which rules were violated. Instrumentation for the present study involved the educational problem set devised by Taylor (1982).

Further discussion on the use of the instrument in the present study is found in the procedures.

CHAPTER III

PROCEDURES

The sample is discussed first and includes a description of selection procedures and of the participants involved. Then, instrumentation is described followed by an explanation of the procedures used to obtain the human subjects' approval. The pilot study is explained next and the method of data collection is presented. Finally, the plan for data analysis is included.

Sample

The sample was selected from the general population of department chairpersons and division directors in Florida community and junior Colleges. In March, 1984, a letter was sent to the academic deans or deans of instruction at all community and junior colleges in the state of Florida requesting names and disciplines of all department chairpersons and division directors (see Appendix B). A month later, a follow-up phone call was used to contact those who had not responded in order to obtain complete information regarding the population. In October, 1984, just prior to the selection of the sample, either the academic dean or personnel office of each college or campus was contacted to up-date and verify the list of names.

At the time of this final up-date in October, 1984, there were 388 department chairpersons and division directors in over 10 academic disciplines in Florida community and junior colleges. Adult

education, learning resources, and counseling chairpersons or directors were not included since they do not administer academic disciplines. Of this number, 136 were females, and 23 males and females were involved in the discipline of physical education. The population was grouped alphabetically and numbered by male and by female for each college or campus. If a college had a multicampus structure, each campus with a minimum of four department chairpersons or division directors was regarded separately for this study. Due to the large number of department chairpersons and division directors, 194 or 50% were selected for the study using the sampling table devised from the formula by Krejcie & Morgan (1970).

A percentage of administrators was selected per college or campus proportionate to the percentage of department chairpersons and division directors per college or campus in the total population of this study. Since equal-sized samples of males and females were desired for comparison by sex, 97 males and 97 females were selected from the population using stratified random sampling (Gay, 1981). It was determined that the 97 males used for this study were 38% of the total males in the population and the 97 females were 72% of the total female population. By drawing numbers randomly from a box, males and females were selected for each college or campus until this proportionate percentage was achieved. Each college or campus was represented by at least one male and one female except the two colleges with no female chairpersons or directors. In addition, all physical education department chairpersons or division directors (excluding the investigator) who were not selected previously were

included as participants. These additional chairpersons and directors were used only in the portion of the study involving a comparison of physical education with other disciplines.

A 60% level of return was sought from those who agreed to participate in the study. If 60% of chairpersons and directors did not agree to participate or if 60% of those agreeing to participate did not respond, additional participants would be selected randomly from the population remaining using the procedure described previously.

Instrumentation

The 30 problem sets derived in 1978 by Taylor (1982), then copyrighted in 1978 by Kepner-Tregoe, were used as the instrument (see Appendix A) to which the chairpersons and directors were asked to respond. These problem sets followed the pattern of the Kepner-Tregoe problem sets for business and industry utilizing the Vroom-Yetton model. However, the Taylor problems were designed for higher education and are particularly applicable to department chairpersons and division directors. Numerous situations are presented, some of which involve administrators other than department chairs. Taylor's rationale for that was to present unique situations which department chairpersons would not already have experienced. Department chairpersons and division directors selected one of the five decision styles used in the Vroom-Yetton model as their choice of decision style for each of the 30 problems.

This instrument was chosen because it uses the Vroom-Yetton model which has been validated, as discussed previously. The five styles of

decision-making are more thorough and encompass styles proposed by previous models of leadership and administration. Also, the established scale of the Vroom-Yetton decision styles lends itself to statistical analysis and comparison. Another reason for selecting this instrument was that it had been used previously by Taylor (1982) in a higher education study and comparisons could be discussed. Since the purpose of this study was to gain information about decision-making styles of the selected population, not to train them for decision-making, the rules and decision tree were not made available to the participants.

An answer sheet coded with the participant's number and campus number was used for responses (See Appendix A). Included on the sheet was a request for such pertinent information as sex, discipline, age, number of years as an administrator, and college or campus identification. Also, an opportunity to request a personal decision profile and a dissertation abstract was provided on the sheet.

Human Subjects Approval

In early October, 1984, a copy of the approved dissertation proposal, a copy of the informed consent form, and the principal investigator's project outline form were submitted to the School of HPERD Human Subjects Review Committee of the University of North Carolina at Greensboro for approval (see Appendix B). Once approval was granted, the proper forms were filed. After these procedures were completed, the pilot study was conducted.

Pilot Study

In late October, 1984, a pilot study was conducted within Broward Community College using four former department chairpersons. Since that college reorganized a year ago and cut back on the number of department chairpersons, the former chairpersons were available for the pilot. These individuals were asked to fill out and sign the informed consent form (see Appendix B), to answer the problem sets, and to provide feedback on the instrument.

Two of the four completed the study. Each provided positive feedback about the instrument and the answer sheet. Both participants commented that even though the problem sets were long, they were interesting and enjoyable to read. Also both agreed that the instrument was feasible to use for the study.

Data Collection

In early November, 1984, a letter was mailed to each of the 194 chairpersons and directors and each of the 11 physical education administrators not included in the main sample seeking their participation in the study and stipulating a return deadline (see Appendix B). Included with the letter was the informed consent form and a self-addressed stamped envelope (see Appendix B). A letter was also sent to contact persons at most of the colleges or campuses who were willing to contact the subjects at the respective school to encourage participation in the study (see Appendix B).

When rejections were received, additional participants were drawn and asked to participate, by campus and by sex, using the previously described technique. A total of 25 rejections and one death notice were received from the main sample and one rejection was received from a physical education chairperson. Also during the week that the responses were due, 100 positive returns were received. Each college and campus was reviewed and, for those with low responses, another participant was selected using the established selection method. These selectees were mailed an informed consent form and asked to participate using a letter with a different deadline date than the original letter. A total of 37 substitutes (25 for rejections and 12 for low response schools) were selected. The weekend after the deadline date for the original group to respond about their willingness to participate in the study, a letter (see Appendix B), the instrument, answer sheet, and self-addressed stamped envelope were mailed to positive respondents with a return date stipulated. Each of the colleges and campuses was given a code number (1-37) and each participant was given a code number (females, 101-199; males, 201-299; and participants for physical education only, 301+). On each answer sheet, an identification number was listed which consisted of the campus number followed by the individual number.

As positive replies came in, packets were mailed out containing the letter, answer sheet, instrument, and return envelope. As the original deadline date was nearing, the due date was changed on the letters. One hundred and forty-six positive responses were received for the main study including 75 males and 71 females. Seven

additional positive replies were received (6 male and 1 female) from physical education administrators whose responses were used only in the portion of the study involving comparison of physical education and nonphysical education chairpersons and directors.

The week that the problem sets were due to be returned, a reminder postcard was mailed (see Appendix B) to those who had not responded and several of the contact people were alerted. During the week that the data were to be entered into the computer, 94 completed answer sheets, plus three answer sheets from physical educators participating only in the last section of the study, had been received. Another reminder card was mailed to those who had not responded urging them to complete the study (see Appendix B).

The final count of completed answer sheets numbered 108 or 74% of those who agreed to participate, including 49 females and 59 males. An additional six chairpersons participated in the physical education portion of the study. See Table 2 for a summary of the information on study participants.

Plan for Analysis of Data

In early January, 1985, the data gathered from this study were entered into an IBM mainframe computer and the SPSS statistical package was used to obtain the desired statistics. Information obtained from the computer for this study included means, standard deviations, frequencies, *t*-test results, ANOVA results, and chi square crosstab results. An analysis using means was deemed appropriate since the five decision-making styles had been superimposed on an

TABLE 2

Information on Study Participants

Sample	Asked	Responded			Completed		
		Yes	No	None	Yes	No	None
Original							
Total	194	122	26*	46	93	5	24
M/F	97/97	63/59	12/14	22/24	50/43	2/3	11/24
Added							
Total	37	24		13	15		9
M/F	21/16	12/12		8/4	9/6		3/6
Total	231	146			108		
%		63% of 231			74% of 146		
					47% of 231		
					28% of 388		
PE Only							
Total	11	7	1	3	6	1	
M/F	10/1	6/1	1/0	3/0	5/1	1/0	

* = includes one death No = Refusals None = not returned

unidimensional scale of from 0 to 10 by Vroom and Yetton (1973) who used a method suggested by Coombs (1964). The use of means made it possible to compare the results of this study with the results reported in the Taylor (1982) study. Since comparisons of male with female administrators and of physical education with nonphysical education department chairpersons and division directors were desired, means for pairs of variables were compared using _t_ tests and means of multiple variables were compared by using ANOVA to provide the highest power statistical procedure which could be used with the data. Separate variance results for _t_ tests were used since they provide a more refined test than pooled variance results. The formula used to obtain degrees of freedom for separate variance resulted in fractional numbers rather than whole numbers. Frequencies were chosen to describe the decision-style selections and chi square was used to report on comparisons of decision-style selections. Both provided further enlightenment regarding the data.

The plan for analyzing the data deals separately with each of the four problem statements for this study and is described next.

1. Decision-making styles of community and junior college department chairpersons and division directors will be described using means for the total problem set and for each of the 30 cases to show variation and contingency. Frequencies of decision-style selection will also be used to show variation and contingency. Means will be used to describe decision-making styles for each age category, for each administrative experience category, for each college or campus, and for each discipline category.

2. Comparisons of community and junior college department chairpersons division directors in participative and nonparticipative decision-making categories will be described by frequencies of decision-style selection for each case and for the total problem set. Selection of participative and nonparticipative styles will be compared using chi square for each problem by the eight age categories, by the six administrative experience categories, by the 11 discipline categories, and by sex. Decision-making of colleges and campuses will be described by using frequencies of participative and nonpariticpative style selection.

3. Male and female decision-making will be described and compared using means and t tests for each case, the total problem set, high-quality cases, low-quality cases, high-acceptance cases, and low-acceptance cases. Frequencies of male and female decision-making style selection for each case will be described and compared using chi square 2 x 5. Means and t tests will be used to compare male and female decision-making for each age category and for each administrative experience category. ANOVA will be used involving the total problem set to determine whether significant differences exist in male and female decision-making by age categories, by administrative experience categories, by discipline, or by college or campus.

4. Decision-making of physical education chairpersons and directors will be compared with the decision-making of chairpersons and directors of other disciplines using means and t tests for each case, the total problem set, high-quality cases, low-quality cases,

high-acceptance cases, and low-acceptance cases. Frequencies of physical education and nonphysical education chairpersons' and directors' decision-making style selection for each case will be described and compared using chi square 2 x 5. Means and t tests will be used to compare physical education and nonphysical education chairpersons and directors in each age category and in each experience category. ANOVA will be used involving the total problem set to determine whether significant differences exist in the decision-making of physical education and nonphysical education chairpersons and directors by age categories, experience categories, by sex, and by college or campus. Results are described in the next chapter.

Follow-up with Study Participants

Once the data were analyzed, an abstract was written and decision-making profiles were prepared for each participant using a microcomputer program provided by Kepner-Tregoe. An abstract and profile were sent to each participant that requested this information (see Appendix B).

CHAPTER IV

ANALYSIS OF DATA

The analysis of data regarding decision-making of community and junior college department chairpersons and division directors addressed separately each of the four study questions posed. The 30 problems contained in the problem set, to which the chairpersons and directors responded, are referred to as cases rather than problems to eliminate confusion with the four problems of this study.

The five decision-making styles of the Vroom-Yetton model were the possible choices for answering the 30 cases. The data were analyzed using the SPSS statistical package via an IBM mainframe computor. For comparison, t tests were used since each decision style was previously assigned a scale value by Vroom & Yetton (1973) and means could be determined. Since the Taylor (1982) study used t tests, the same statistic was used in this study to examine and compare results of both studies. ANOVA was used in Problem 3 and Problem 4 to determine if variability existed between and within means of variable categories. Chi square was used for Problem 2 since ordinal data were involved and in portions of Problem 3 and Problem 4. Caution must be used when interpreting data when frequencies in chi square cells are less than five since validity of the chi square is affected. Since many of the chi square cells for the data in Problem 2, Problem 3, and Problem 4 contained frequencies less than 5, results

and discussion of that analysis were not included. Frequencies were included instead for descriptive purposes.

Problem 1

Problem 1 examined the decision-making styles of community and junior college department chairpersons and division directors and whether or not the styles used were contingent upon the situation. Descriptive information such as mean and standard deviation was provided about the decision-making styles of the population for each case, for the total case set and by age, discipline, experience, and campus or college.

Total Group

The mean decision style for 108 Florida community and junior college department chairpersons and division directors was 5.37. This mean score indicated that as a group they preferred a consultive decision-making style. Table 3 shows the mean style for the chairpersons and directors of this study on a continuum using the Vroom-Yetton scale. When using a consultive style, chairpersons and directors share the problem with the faculty, gain their input, and then make the decision themselves. These findings were similar to the Taylor (1982) research that reported a 5.47 mean style of 107 chairpersons in Virginia colleges, universities, and community colleges.

Although the overall mean reflected a consultive style, an examination of the responses to each case indicated that the

TABLE 3

Scale Value of Decision-Making Styles and Mean for Chairpersons and Directors

Styles	AI	AII	CI		CII	GII
Scale	0	.625	5.0	5.37	8.125	10
				Mean		

N=108 AI=Autocratic I AII=Autocratic II CI=Consultive I CII=Consultive II GII=Group II

decision-making styles of the chairpersons and directors were varied and contingent upon the case or situation (see Table 4). The contingency first described is consistent with the contingency theory of decision-making upon which the Vroom-Yetton model is based. The lowest mean was 2.10 for Case 4 which was closer to an Autocratic II style of decision-making. In the Autocratic II style, the faculty is asked for information without explanation of the problem and the chairperson or director makes the decision. Case 4 deals with a decision regarding a temporary replacement for the administrator who plans to attend a four-week seminar. Kepner-Tregoe suggested that either Autocratic II, Consultive I, Consultive II, or Group II are acceptable styles for Case 4 (see Table 5). The highest mean was 9.39 for Case 12 which was close to a Group II decision style. Case 12 involves directing the completion of the final developmental stages of a new interdisciplinary program. This case demonstrates a need for

TABLE 4

Mean Decision Styles for Each Case

	N=108				
Case	M	SD	Case	M	SD
1	6.76	3.54	16	3.30	3.38
2	7.68	2.68	17	4.21	3.88
3	4.73	4.04	18a	5.16	3.45
4	2.10	2.82	19	2.83	3.89
5a	5.05	3.43	20	6.24	3.40
6	6.31	2.94	21	7.47	3.25
7	4.71	4.12	22	5.38	3.77
8	8.70	2.24	23	4.89	3.68
9	7.29	3.02	24	5.30	2.84
10	4.28	3.19	25a	3.70	3.46
11	8.87	2.10	26	4.35	3.85
12	9.39	1.67	27	4.13	3.63
13b	3.34	4.33	28a	7.06	3.31
14c	4.30	3.68	29	2.24	2.92
15	5.49	3.34	30	7.02	3.11
			Total	5.37	1.35

a N = 107 b N = 104 c N = 106

TABLE 5

Frequencies of Decision-Making Style Selection and Acceptable Styles for Each Case

Case	Styles					
	AI	AII	CI	CII	GII	Kepner-Tregoe Acceptable
1	16	9	14	44	31	GII
2	2	6	19	44	43	CI CII
3	28	19	15	32	20	AI AII CI CII GII
4	44	36	28	7	2	AII CI CII GII
5	10	24	35	30	14	AII CI CII
6	7	9	34	50	14	CII
7	40	7	18	27	22	AI AII CI CII GII
8	3	1	9	26	69	GII
9	1	15	19	43	36	CII
10	10	31	43	26	4	AI AII CI CII
11	0	3	11	23	77	CII GII
12	1	1	6	14	92	GII
13	52	16	10	4	28	AI AII CI CII GII
14	24	24	21	38	5	AII CI CII
15	6	25	31	42	10	CII

Table Continues

Case	Styles					
	AI	AII	CI	CII	GII	Kepner-Tregoe Acceptable
16	35	25	29	23	2	AI AII CI CII
17	20	34	17	26	14	AI AII CI CII GII
18	10	24	30	38	11	CII
19	56	17	9	19	13	AI AII CI CII GII
20	9	15	25	43	22	CII
21	8	8	17	32	49	GII
22	18	15	26	33	22	AI AII CI CII GII
23	12	28	25	36	13	AII CI CII GII
24	2	22	50	36	4	CII GII
25	24	31	23	34	1	AI AII CI CII
26	35	11	28	22	23	GII
27	26	23	30	25	10	AI AII CI CII GII
28	9	8	18	40	38	GII
29	49	25	28	12	0	AI AII CI CII
30	5	12	18	50	29	AI AII CI CII GII

Group II decision-making according to Kepner-Tregoe. In the Group II style, the problem is shared with faculty. The problem is then evaluated by the group and the decision is made by the group. The chairperson or director serves only as a moderator and does not attempt to influence the group behavior.

The frequency of each style selection for each case is displayed in Table 5 along with the selection which is deemed acceptable by Kepner-Tregoe. An examination of the frequency and percentage with which each of the five decision-making styles was selected (see Table 6) for the total case set showed the Consultive II style was most often used. The number of potential responses for the 30 cases by 108 participants was 3240 and Consultive II was selected 879 times. The percentage of selection in each category compared closely with the Taylor (1982) study (see Table 6) and gave further evidence of the contingency orientation of the chairpersons and directors.

Age and Experience

Eight age categories were designated for the chairpersons and directors in this study. Since it was cumbersome to deal with each age individually for analysis, age groups were formed using five-year intervals with the exception of the youngest and oldest categories. Five-year intervals were selected rather than 10-year intervals to provide a more descriptive profile. Means in each of these categories were variable although most clustered near the Consultive I style (5.0) (see Table 7).

TABLE 6

Frequencies and % of Decision Style Selection for 30 Cases and Comparison with Taylor (1982) Results

Study	N	Styles					
		AI	AII	CI	CII	GII	MAa
Parke (1985)	108						
Frequencies		522	498	656	879	675	10
%		16.1	15.4	20.3	27.1	20.8	.3
Taylor (1982)	107						
%		16	14	22	26	22	

a MA denotes missing answers

TABLE 7

Mean Decision Style by Age and by Experience

Age	N	M	SD	Exp Years	N	M	SD
<30	1	2.65	0	<1	3	4.22	1.05
30-34	7	5.28	1.55	1-2	20	5.29	1.21
35-39	18	5.34	1.21	3-4	21	5.20	1.36
40-44	14	4.67	1.47	5-9	28	5.14	1.26
45-49	22	5.20	1.32	10-19	24	5.61	1.53
50-54	20	5.45	1.05	20+	12	6.12	1.24
55-59	20	5.93	1.21				
>59	6	6.09	1.85				

Years of administrative experience were grouped in six categories of unequal size. Fewer years were indicated in the earlier experience categories speculating that more changes would take place in style of administration during the earlier years. Thus, a smaller breakdown in those years might reflect better these differences or changes. Means were similar with the exception of less than one year of experience with a 4.22 mean and 20-plus years of administrative experience with a 6.12 mean (see Table 7). The 4.22 indicated a less consultive style and 6.12, a more consultive style.

Information in age categories and experience categories paralleled each other. The style in the lowest category for both variables was less consultive and in the highest category was more consultive. Although the numbers were smaller in these extreme categories, an implication might be that younger or less experienced administrators are less comfortable with a consultive or participative style than older or more experienced administrators. The third highest age category of 50-54 and the experience category of 10-19 years also indicated a more consultive style than the younger or less experienced categories. The younger or inexperienced may feel they would lose power through use of a more consultive or group decision-making style, whereas the older or more experienced administrators may not be threatened by the power sharing involved in group decision-making and may not regard it as losing power.

College or Campus

The mean scores for each of the 31 colleges and campuses are

presented in Table 8. Several colleges and campuses were not included because either only one participant or no participant was involved. The lowest mean was 3.49 for participants from Indian River Community College which reflected a more autocratic style than participants from St. Petersburg Jr. College-Health Education Campus. The latter group had the highest mean of 7.10, which was closer to the Consultive II style. The author speculates that higher level administrators at Indian River Community College may use a more autocratic style of decision-making which could account for a less consultive style of decision-making at lower administrative levels and that higher level administrators at St. Petersburg Junior College-Health Education Campus may use a more participative style of decision-making which could account for the more consultive decision-making style used by chairpersons and directors. The data indicate that the majority of colleges and campuses, however, were led by chairpersons and directors with a consultive style of decision-making. This contention was supported by the literature which speculated that people may administer according to the style of the organization (Barnard, 1938).

Discipline

Also added to the descriptive information concerning the respondents were the mean decision styles of chairpersons and directors in various disciplines (see Table 9). Most disciplines were characterized by a consultive style. Mathematics and Behavioral Sciences displayed the highest mean decision style with 6.53 and 6.46, respectively. Evidence presented in administrative and

TABLE 8

Mean Decision Style by College/Campus

College/Campus	N	M	SD
Central Florida	2	6.31	.15
Chipola	2	5.42	2.42
Daytona Beach	8	4.54	1.00
Edison	3	5.62	1.38
Florida Junior	2	4.82	1.25
Florida Keys	2	6.51	1.16
Gulf Coast	3	5.62	2.76
Hillsborough	2	5.45	1.61
Indian River	2	3.49	1.72
Lake City	2	5.88	.38
Lake Sumpter	2	5.76	1.31
Manatee	4	5.06	1.67
Miami-Dade Med Ctr	2	6.71	1.77
Miami-Dade South	4	5.51	.50
Miami-Dade North	8	5.34	2.03
Miami-Dade NWC	3	5.55	.63
Palm Beach	6	5.00	.85

Table Continues

College/Campus	N	M	SD
Pasco Hernando	2	5.80	1.10
Pensacola-Pen	7	5.13	1.42
Polk	2	6.40	1.52
St. Johns River	2	6.54	.41
St. Petersburg-Cl	4	5.28	.34
St. Petersburg-Health	2	7.10	1.59
St. Petersburg-SP	4	5.46	2.08
Seminole	3	5.40	.64
Tallahassee	2	3.96	1.71
Valencia-West	2	4.39	.49
Broward-North	5	4.58	1.06
Broward-Central	5	6.60	1.02
Broward-Allied Health	5	5.56	.59
Broward-South	2	5.07	1.34

TABLE 9

Mean Decision Style by Discipline

Discipline	N	M	SD
Physical Education	9	5.54	.69
Communications	9	5.19	1.71
Behavioral Sciences	5	6.46	2.07
Mathematics	2	6.53	.57
Science	5	5.75	1.16
Business	11	5.16	.57
Allied Health	19	5.74	1.19
Engineering & Tech	6	6.04	1.14
Humanities	8	5.82	.99
2 or More of Above	26	4.97	1.35
None of the Above	8	4.64	1.13

leadership literature speculates that administrators who are people-oriented would be more consultive or group oriented in decision-making and that product-oriented administrators would be less consultive (Hersey & Blanchard, 1977; Bass, 1981). Decision-making styles of behavioral science administrators, who tend to be people-oriented, would be expected to be more consultive and math, science, and engineering and technology administrators, who tend to be product-oriented, would be expected to be less consultive. The data in Table 9 do not uphold that supposition. Chairpersons and directors with two or more discipline areas of responsiblity had a mean of 4.97 which is slightly below the 5.0 Consultive I style and lower than the styles of single-discipline chairpersons and directors with the exception of the miscellaneous category. Administrators of multiple discipline areas might be expected to be more consultive or group oriented in decision-making. One might speculate that it would be more difficult to administer a variety of disciplines without a great deal of consultation or group decision-making. Results of this study were contrary to that speculation. Perhaps they are less consultive because of the inconvenience or because of time constraints in contacting numerous individuals in a variety of disciplines.

Summary

Data discussed in Problem 1 implied two major ideas. One was that the decision style of community and junior college department chairpersons and division directors was consultive, generally. The

other idea was that the decision-making styles of these chairpersons and directors varied with and were contingent upon the situation.

Problem 2

Problem 2 focused on how participative or nonparticipative community and junior college department chairpersons and division directors were in their decision-making styles taking into consideration age, administrative experience, discipline, sex, and college or campus. Decision-making styles were classified into participative and nonparticipative categories and examined by age, experience, discipline, sex, and college or campus. Chairpersons and directors were examined on the frequency with which they selected a participative decision-making style as opposed to a nonparticipative decision-making style. The Autocratic I and Autocratic II styles were considered nonparticipative and the Consultive I, Consultive II, and Group II styles were considered participative. This grouping was designated by Vroom & Yetton (1973).

The planned analysis called for the use of the chi square statistic for making participative and nonparticipative comparisons. Many of the cells, however, in each of the comparisons contained frequencies of less than 5 which caused the results to be unreliable. Therefore, it was possible to discuss only frequency data relative to participative and nonparticipative styles.

Total Group

The data showed that a participative decision-making style was

chosen 2210 times which was more than twice as often as the 1020 times a nonparticipative decision-making style was selected. The respondents selected a participative style in over 68% of their judgments on the 30 cases. A nonparticipative style was more often selected for only four cases, numbers 4, 13, 19, 29 (see Table 10). In each of these cases, either four or five styles were deemed acceptable by Kepner-Tregoe. No similarity was found between the four cases.

Age and Experience

Chairpersons and directors in all age categories, with the exception of less than 30 years of age, selected a participative decision-making style more frequently (see Table 11). Since the age category of less than 30 involved only one person, a generalization was not made concerning the decision-making style of that age group. The two oldest age groups appeared to be most participative in their decision-making, with chairpersons and directors 60+ years of age involving subordinates 83% and chairpersons and directors 55-59 years of age involving subordinates 75%.

Chairpersons and directors in all experience categories selected a participative decision-making style more frequently (see Table 11). Those with 10-19 and 20+ years of experience appeared to be most participative and involved subordinates in decision-making 72% and 80% respectively.

Both the older chairpersons and directors and the more experienced chairpersons and directors selected a participative style

TABLE 10

Frequencies and Percentages of Participative and Nonparticipative Decision Style Selection for Each Case

N =108

Case	Frequencies			Percentages		
	NP	P	NA	NP	P	NA
1	21	87		19	81	
2	8	100		7	93	
3	45	63		42	58	
4	73	35		68	32	
5	32	75	1	30	69	1
6	15	93		14	86	
7	44	64		41	59	
8	4	104		4	96	
9	13	95		12	88	
10	39	69		36	64	
11	3	105		3	97	
12	2	106		2	98	
13	65	39	4	60	36	4
14	45	61	2	42	56	
15	28	80		26	74	

NP = Nonparticipative P = Participative NA = No Answer

Table Continues

N=108

Case	Frequencies			Percentages		
	NP	P	NA	NP	P	NA
16	56	52		52	48	
17	51	57		47	53	
18	32	75	1	30	69	1
19	71	37		66	34	
20	22	86		20	80	
21	14	94		13	87	
22	33	75		31	69	
23	39	69		36	64	
24	22	86		20	80	
25	52	55	1	48	51	1
26	44	64		41	59	
27	46	62		43	57	
28	16	91	1	15	84	1
29	70	38		65	35	
30	15	93		14	86	
Total	1020	2210	10	32	68	

NP = Nonparticipative P = Participative NA = No Answer

TABLE 11

Frequencies and Percentages of Participative and Nonparticipative Decision Style Selections by Age and by Experience

	N	Frequencies			Percentages		
		NP	P	NA	NP	P	NA
Age							
<30	1	19	11		63	37	
30-24	7	70	140		33	67	
35-39	18	181	359		34	66	
40-44	14	163	255	2	39	61	
45-49	22	228	431	1	35	65	
50-54	20	189	411		32	68	
55-59	20	143	453	4	24	75	1
60+	6	27	150	3	15	83	2
Exper Years							
<1	3	39	51		43	57	
1-2	20	204	396		34	66	
3-4	21	211	415	4	33	66	1
5-9	28	293	545	2	35	65	
10-19	24	204	515	1	28	72	
20+	12	69	288	3	19	80	1

NP = Nonparticipative P = Participative NA = No Answer

more frequently than other chairpersons and directors. These observations concerning the selection frequencies of participative decision-making styles supported the mean style data described previously in Table 7.

Discipline and Sex

Frequencies of decision-making style selection were examined for each discipline and each sex (see Table 12). Chairpersons and directors in each discipline category selected a participative style more frequently. Chairpersons and directors of Behavioral Science and Mathematics appeared the most participative and chose to involve subordinates in decision-making 83% and 77%, respectively. These observations support the mean style data described previously in Table 9.

Both male and female chairpersons and directors selected a participative decision-making style more often than a nonparticipative style. Subordinates were involved in the decision-making style selection of both sexes approximately two-thirds of the time.

College or Campus

Frequencies of participative and non-participative decision-making style selections were tabulated for each college or campus and are presented in Table 13. Colleges and campuses with only one participant were not included. Only two colleges, Indian River Community College and Sante Fe Community College, were slightly more nonparticipative than participative. Florida Keys Community College

TABLE 12

Frequencies and Percentages of Participative and Nonparticipative Decision Style Selections by Discipline and by Sex

	N	Frequencies			Percentages		
		NP	P	NA	NP	P	NA
Discipline							
Phys. Educ	9	78	192		29	71	
Communications	9	82	183	5	30	68	2
Behav. Sci.	5	26	124		17	83	
Mathematics	2	14	46		23	77	
Science	5	42	108		28	72	
Business	11	115	215		35	65	
Allied Health	19	169	400	1	30	70	
Engineer/Tech	6	63	117		35	65	
Humanities	8	64	176		27	73	
2 or More	26	270	507	3	35	65	
None of Above	8	97	142	1	40	60	
Sex							
Male	59	540	1224	6	31	69	
Female	49	480	986	4	33	67	

NP = Nonparticipative P = Participative NA = No Answer

TABLE 13

Frequencies and Percentages of Participative and Nonparticipative Decision Style Selections by College/Campus

College/Campus	N	Frequencies			Percentages		
		NP	P	NA	NP	P	NA
Central Florida	2	17	43		28	72	
Chipola	2	23	37		38	62	
Daytona Beach	8	100	140		42	58	
Edison	3	27	63		30	70	
Florida Junior	2	22	37	1	37	61	2
Florida Keys	2	9	51		15	85	
Gulf Coast	3	23	67		26	74	
Hillsborough	2	22	38		37	63	
Indian River	2	33	27		55	45	
Lake City	2	17	43		28	72	
Lake Sumpter	2	18	42		30	70	
Manatee	4	37	81	2	31	67	2
Miami Dade-Med	2	12	48		20	80	
Miami Dade-South	4	38	82		32	68	
Miami Dade-North	8	79	161		33	67	
Miami Dade-NWC	3	28	62		31	69	

NP = Nonparticipative P = Participative NA = No Answer

Table Continues

College/Campus	N	Frequencies			Percentages		
		NP	P	NA	NP	P	NA
Palm Beach	6	61	119		34	66	
Pasco Hernando	2	24	36		40	60	
Pensacola-Pen	7	67	142	1	32	68	
Polk	2	9	50	1	15	83	2
St. Johns River	2	9	51		15	85	
St. Petersburg-Cl	4	27	93		22	78	
St. Petersburg-He	2	11	49		18	82	
St. Petersburg-SP	4	31	87	2	26	72	2
Seminole	3	26	64		29	71	
Tallahassee	2	26	34		43	57	
Valencia-W	2	24	36		40	60	
Broward-North	5	62	87	1	41	58	1
Broward-Central	5	24	124	2	16	83	1
Broward-A. Health	5	49	101		33	67	
Broward-South	2	22	38		37	63	

NP = Nonparticipative P = Participative NA = No Answer

and St. John's River Community College, at 85%, had the highest percentage of participative decision style selections.

Summary

In summary, a participative style was selected predominantly by chairpersons and directors and participative style selection persisted when decision-making was examined by age, administrative experience, sex, discipline, and college or campus. The data analyses added support to the claim that administrators in higher education are participative in their decision-making and further implied that they are participative regardless of age, experience, sex, discipline, or college or campus (Henle, 1971; McGrath, 1976; Balderson, 1979; Dufty & Williams, 1979).

Problem 3

This problem dealt with how decision-making styles of male and female community college department chairpersons and division directors compared regarding the grand mean for the 30 cases, mean scores for each of the 30 cases, means of high-quality and low-quality cases, means of high-acceptance and low-acceptance cases, frequencies of style selection for each case, age categories, administrative experience categories, disciplines, and colleges or campuses. Decision-making styles were examined and compared by sex in order to determine the existence of any significant differences at a level of .05. Comparisons were made using *t* tests for the total case set, each case, high-quality and low-quality cases, high-acceptance and low-

acceptance cases, age categories, and experience categories. Frequencies of decision-making style selection by sex for each case were included for descriptive purposes. ANOVA was used to compare decision-making of the sexes by age, by administrative experience, by discipline, and by college or campus for the total case set.

Total Case Set and Individual Cases

The grand means of male and female chairpersons and directors for the 30 cases were compared using *t* tests. The female grand mean was 5.41 and male grand mean was 5.33. The *t* value of 0.29, with 104.51 degrees of freedom and .77 2-tailed probability, indicated that no significant difference existed between the decision styles of male and female chairpersons and directors.

Means of the 59 male and 49 female chairpersons and directors were compared for each of the 30 cases using *t* tests (see Table 14). Decision-making styles for only four cases indicated a significant sex difference. Cases 4, 7, 20, and 29 showed significant differences by sex with males having a higher mean for Cases 4, 7, and 29 or for three of the four cases (see Table 14). The content of these four cases is not similar in nature, and Kepner-Tregoe suggested four acceptable styles for Cases 4 and 29, five acceptable styles for Case 7, and only one acceptable style for Case 20. There appeared to be no consistency in the means, content, or acceptable decision-making styles for these four cases; therefore, no implications can be made.

High-Quality and Low-Quality Cases

The 30 cases used for the instrument of this study were

TABLE 14

t-Test Comparison of Females and Males for Each Case and the Total Case Set

Case	Female		Male		t	DF	2-tail
	M	SD	M	SD			Prob
	N=49		N=59				
1	7.28	3.49	6.31	3.55	1.43	103.07	.16
2	7.90	2.32	7.51	2.96	.76	105.64	.45
3	3.94	4.17	5.38	3.85	-1.85	98.94	.07
4	1.42	2.16	2.67	3.16	-2.43	102.45	.01*
5a	4.93	3.60	5.14	3.30	- .30	96.66	.76
6	6.49	2.72	6.16	3.13	.58	105.79	.56
7	3.53	4.15	5.69	3.86	-2.77	99.30	.01*
8	9.02	2.17	8.43	2.28	1.37	103.97	.18
9	7.74	2.81	6.92	3.16	1.43	105.49	.16
10	4.06	3.31	4.46	3.10	- .65	99.61	.52
11	9.20	1.82	8.59	2.29	1.53	105.82	.13
12	9.69	1.40	9.14	1.84	1.77	105.28	.08
13	3.61	4.68a	3.11	4.05b	.57	93.71	.57
14	4.56	3.73b	4.09	3.66c	.64	99.56	.52
15	5.51	3.45	5.46	3.27	.07	100.23	.43

a N = 48 b N = 56 c N = 58

Table Continues

Case	Female		Male		t	DF	2-tail
	M	SD	M	SD			Prob
	N=49		N=59				
16	3.02	3.21	3.54	3.53	-0.79	105.13	.43
17	4.19	3.97	4.21	3.83	-0.03	100.92	.98
18	4.60	3.60a	5.62	3.27	-1.53	96.27	.13
19	3.32	4.25	2.42	3.55	1.20	93.72	.23
20	7.10	3.35	5.53	3.30	2.45	101.72	.02*
21	7.61	3.31	7.34	3.22	.43	101.32	.67
22	5.59	3.70	5.21	3.86	.51	103.84	.61
23	5.13	3.65	4.69	3.72	.61	103.02	.54
24	5.19	3.08	5.38	2.65	- .34	95.41	.73
25	3.88	3.61	3.56	3.45b	.47	99.01	.64
26	4.35	3.76	4.34	3.95	.01	104.04	.99
27	4.43	3.89	3.89	3.41	.76	96.27	.45
28	7.31	3.38	6.85	3.26b	.71	100.69	.48
29	1.31	2.46	3.01	3.05	-3.19	105.92	.002*
30	7.46	2.91	6.65	3.24	1.37	105.35	.18
Total	5.41	1.30	5.33	1.39	.29	104.51	.77

a N= 48 b N = 58

categorized by Kepner-Tregoe as either high quality or low quality. A portion of decision-making profiles provided by Kepner-Tregoe are based upon means of high-quality and low-quality cases. There were 24 high quality cases which were designed so that the decision would have great impact on the effectiveness of the organization (Vroom & Yetton, 1973). Therefore, it was important to secure faculty involvement in the decision. Decisions for the six low-quality cases did not impact organizational effectiveness; therefore, the need for faculty participation in the decision-making was minimal (Vroom & Yetton, 1973). The t tests comparing means for male and female chairpersons and directors on the high-quality and the low-quality cases revealed no significant differences (see Table 15). Males had a high-quality mean of 5.54 and females had a high-quality mean of 5.61 which are similar to the 5.62 high-quality mean determined by the Taylor (1982) study. Means in the Taylor (1982) study were not differentiated by sex. Males had a low-quality mean of 4.64 and females had a low-quality mean of 4.74 which were slightly lower but similar to the 4.93 low-quality mean reported in the Taylor (1982) study.

High-Acceptance and Low-Acceptance Cases

The 30 cases used in this study were also categorized by Kepner-Tregoe as high-acceptance or low-acceptance cases. A portion of the decision-making profiles provided by Kepner-Tregoe uses means for high-acceptance and low-acceptance cases as well as high-quality and low-quality cases. There were 20 high-acceptance cases for which it was critical to have faculty acceptance of or commitment to the

TABLE 15

t-Test Comparisons by Sex for Case Types

Case Types	N	M	SD	t	DF	2-tail Prob
Hi Quality				.28	98.55	.78
Female	49	5.61	1.32			
Male	59	5.54	1.42			
Lo Quality				.24	96.42	.81
Female	49	4.74	2.07			
Male	59	4.64	1.90			
Hi Accept				.22	101.67	.83
Female	49	5.86	1.29			
Male	59	5.80	1.90			
Lo Accept				.03	92.49	.98
Female	49	4.54	1.87			
Male	59	4.53	1.64			

decision (Vroom & Yetton, 1973). For acceptance, faculty participation in decision-making would be important. In the 10 low-acceptance cases, faculty acceptance of or commitment to the decision or participation in the decision-making was not viewed as essential (Vroom & Yetton, 1973). The t tests comparing means for male and female chairpersons and directors on high-acceptance and on low-acceptance cases revealed no significant differences between the means (see Table 15). Males had a high-acceptance mean of 5.80 and females had a high-acceptance mean of 5.86 which were very close and also similar to the 5.95 high-acceptance mean found in the Taylor (1982) study. Males had a low-acceptance mean of 4.53 and females had a low-acceptance mean of 4.54 which were virtually identical to the 4.59 low-acceptance mean reported in the Taylor (1982) study.

Frequencies of Decision-Making Style Selection

Frequencies of decision-making style selection by males and female for each case are shown in Table 16. Frequencies of decision-making style selection for each case are included for descriptive purposes and to provide a better understanding of style selection by sex.

In Case 3 and Case 7, participative styles of CI, CII, and GII were selected more often by females, while males selected nonparticipative styles of AI and AII more often. Those were the only differences determined by observation. Chi square results may have revealed other differences if more data had been available.

TABLE 16

Frequencies of Decision Style Selections by Sex

Case	Frequencies Male/Female				
	AI	AII	CI	CII	GII
1	8/ 5	5/ 3	8/ 5	27/16	11/20
2	2/ 0	4/ 2	10/ 9	21/21	22/17
3	9/17	10/ 9	11/ 4	18/12	11/ 7
4	21/21	14/18	16/10	6/ 1	2/ 0
5	5/ 4	11/12	20/14	18/11	5/ 7
6	4/ 3	6/ 2	17/16	24/23	8/ 5
7	12/25	5/ 2	10/ 7	20/ 7	12/ 8
8	2/ 1	0/ 1	7/ 2	20/10	30/35
9	1/ 0	8/ 4	10/ 9	25/15	15/21
10	4/ 5	15/15	24/16	14/11	2/ 2
11	0	2/ 1	8/ 3	13/ 8	36/37
12	1/ 0	0/ 1	4/ 0	11/ 3	43/45
13	24/25	11/ 5	7/ 2	4/ 0	10/16
14	13/10	13/ 9	11/ 9	19/17	2/ 3
15	1/ 4	14/ 9	17/12	22/19	5/ 5

a DF = 4 Males = 59 Females = 49

Table Continues

Case	Frequencies Male/Female				
	AI	AII	CI	CII	GII
16	16/16	14/10	12/15	16/ 7	1/ 1
17	9/10	18/14	12/ 5	12/15	8/ 5
18	3/ 5	11/13	16/13	24/12	5/ 5
19	22/27	14/ 3	7/ 2	6/10	5/ 7
20	3/ 4	11/ 4	19/ 5	19/21	7/15
21	2/ 5	6/ 1	9/ 7	19/12	23/24
22	10/ 8	10/ 5	11/13	18/13	10/10
23	8/ 4	15/12	11/12	20/14	5/ 7
24	0/ 2	10/10	29/18	18/17	2/ 2
25	13/ 8	15/16	15/08	15/16	0/ 1
26	19/14	6/ 5	13/15	12/ 8	9/ 7
27	12/11	13/10	20/ 9	10/13	4/ 6
28	3/ 5	6/ 2	11/ 7	22/15	16/20
29	16/31	15/ 8	19/ 7	9/ 3	0
30	1/ 4	9/ 1	12/ 6	23/24	14/14

a DF = 4 Males = 59 Females = 49

Age

To compare decision-making in each age group by sex t tests were conducted (see Table 17). The t tests showed no significant differences in decision-making by sex in any of the age categories. In addition an ANOVA was calculated for the total case set by sex and by age categories. Age categories 1 and 2 were combined since group 1 contained only one administrator. An F of 1.36 with 6 degrees of freedom and a significance of .24 was found which indicated no difference. These results showed that the decision-making of males and females was not significantly different regardless of age.

Experience

To compare each experience group by sex, t tests were conducted (see Table 17). The t tests showed that no significant differences existed in decision-making by sex in each of the experience categories. In addition, an ANOVA was calculated for the total case set by sex and by experience categories. Results were an F of 1.44 with 5 degrees of freedom and a significance of .22 indicating no difference. The t tests and ANOVA results implied that years of administrative experience did not impact on the selection of decision-making styles of males and females.

Discipline

An ANOVA was calculated for the total case set by sex and by discipline categories. Results were an F or 1.38 with 9 degrees of freedom and a significance of .21 which was not significant. These results showed that males and females were not significantly different

TABLE 17

t-Test Comparisons by Sex in Age Groups and in Experience Groups

	Female			Male			t	DF	2 Tl
	N	M	SD	N	M	SD			Prob
Age									
<30	0	0		1	2.65	0			
30-34	7	5.28	1.55	0	0	0			
35-39	7	5.19	1.10	11	5.43	1.33	- .40	14.71	.69
40-44	6	4.72	1.16	8	4.64	1.74	.10	11.90	.93
45-49	14	5.15	1.35	8	5.29	1.35	- .24	14.70	.82
50-54	6	5.45	.89	14	5.45	1.15	- .01	12.24	.99
55-59	6	6.14	.87	14	5.85	1.35	.59	14.67	.57
60+	3	7.28	1.37	3	4.90	1.56	1.99	3.93	.12
Exper Years									
<1	2	3.64	.37	1	5.40	0	-6.76	1.00	.09
1-2	11	4.97	.98	9	5.68	1.41	-1.28	13.85	.22
3-4	13	5.64	1.15	8	4.49	1.43	1.93	12.58	.08
5-9	12	5.50	1.10	16	4.88	1.34	1.35	25.72	.19
10-19	8	5.69	2.05	16	5.57	1.27	.16	9.75	.88
20+	3	6.09	.90	9	6.12	1.38	- .04	5.53	.97

in the selection of decision-making styles regardless of their discipline orientation.

College or Campus

An ANOVA was calculated for the total case set by sex and by colleges and campuses. Results were an F of .86 with 19 degrees of freedom and a significance of .63 which indicated no difference. Implications were that male and female decision-making patterns were not significantly different within and between colleges and campuses.

Summary

Data analyses for this problem revealed no basic difference in the selection of decision-making styles by sex. It appeared that neither age nor experience level caused a difference in the selection of decision-making styles by sex. Higher education has provided numerous opportunities for females to serve in administrative and leadership capacities. For the most part, responsibilities within higher education have not seemed to be sex-typed; therefore, females have been free to contribute to the functioning of the higher education organization without pressure to conform to the established system. Data from this study, however, showed that female decision-making styles were not different from that of males. This may imply that either females have conformed to a percieved male style of decision-making or that decision-making is androgenous rather than sex-typed. Further research in this area is needed. Results showed that certain styles were better or more suitable to particular problems and situations and indicated that both males and females were

capable of examining the problem or situation and using the most suitable decision-making style as indicated by Kepner-Tregoe. It may be possible, from this information, to infer that decision-making in higher education is not sex-typed. These results may also help to dispel myths that males and females administer differently and that one sex type may be superior to another in an administrative capacity (Hennig & Jardim, 1976; Bartol & Butterfield, 1976; Putnam & Heinen, 1978).

Problem 4

This problem dealt with how decision-making styles of physical education department chairpersons and division directors compared with department chairpersons and division directors of other disciplines. This was examined regarding the grand mean for the total case set, mean scores for each of the 30 cases, means of high-quality and low-quality cases, means of high-acceptance and low-acceptance cases, frequencies of selected decision-making styles, age categories, administrative experience categories, and sex. Decision-making styles of physical education chairpersons and directors were compared to chairpersons and directors in other disciplines to determine the existence of significant differences at a level of .05. Comparisons were made using *t* tests for the total case set and for each case, high-quality and low-quality cases, high-acceptance and low-acceptance cases, age, and experience. Frequencies of decision-making style selection for each case were described. ANOVA was used to compare decision-making of physical education and nonphysical education

chairpersons and directors by age, experience, sex, and college or campus for the total case set.

Total Case Set and Each Case

The grand mean for physical education chairpersons and directors and the grand mean for chairpersons and directors in other disciplines using all 30 cases were compared using t tests. The physical education mean was 5.42 and the mean for other discplines was 5.35. The t value of 0.27, involving 29.06 degrees of freedom, indicated no significant difference.

The mean of 15 physical education chairpersons and directors for each case was compared to the mean of 99 chairpersons and directors of other disciplines for each case using t tests (see Table 18). A significant difference was not found for any of the 30 cases.

High- and Low-Quality Cases; High- and Low-Acceptance Cases

The responses of physical education chairpersons and directors and chairpersons and directors of other disciplines were compared using t tests for high-quality cases, low-quality cases, high-acceptance cases, and low-acceptance cases (see Table 19). No significant differences were found when comparing the means for any of the four types of cases. An explanation of high-quality, low-quality, high-acceptance and low-acceptance cases was included in the analysis and discussion for problem 3. The means for physical education chairpersons and directors and chairpersons and directors of other disciplines were similar to those determined in the Taylor (1982) study. On high-quality cases, the means were 5.54 for physical

TABLE 18

t-Test Comparison of Physical Education Administrators and Nonphysical Education Administrators for Each Case and the Total Case Set

Case	Phys Educ		Nonphys Ed		t	DF	2 Tail
	M	SD	M	SD			Prob
	N=15		N=99				
1	5.29	3.55	6.70	3.66	-1.43	18.80	.17
2	7.88	2.79	7.76	2.64	.15	18.00	.88
3	4.79	4.11	4.80	4.08	- .01	18.45	.99
4	2.54	3.12	2.01	2.75	.62	17.45	.54
5	4.87	3.80	5.11	3.44a	- .22	17.71	.82
6	7.25	2.41	6.19	3.01	1.53	21.25	.14
7	3.21	3.89	4.90	4.15	-1.56	19.17	.14
8	8.58	1.71	8.76	2.26	- .35	22.17	.73
9	6.62	3.10	7.22	3.15	- .69	18.64	.50
10	4.08	2.98	4.28	3.21	- .24	19.28	.81
11	8.88	2.43	8.90	2.01	- .03	17.02	.98
12	9.21	1.78	9.36	1.73	- .30	18.25	.77
13	2.92	4.34	3.46	4.36b	- .45	18.76	.66
14	3.88	3.60	4.34	3.70c	- .46	18.87	.65

a N = 98 b N = 95 c N = 97

Table Continues

Case	Phys Educ		Nonphys Ed		t	DF	2 Tail
	M	SD	M	SD			Prob
	N=15		N=99				
15	5.92	3.67	5.28	3.32	.63	17.66	.54
16	2.25	3.08	3.37	3.38	-1.30	19.49	.21
17	4.92	3.96	4.12	3.90	.73	18.36	.48
18	5.96	3.42	5.04	3.48a	.96	18.73	.35
19	3.42	4.22	2.92	3.94	.43	17.90	.67
20	5.38	3.49	6.29	3.42	- .95	18.32	.35
21	6.67	3.84	7.47	3.25	- .77	17.17	.45
22	6.46	3.12	5.36	3.82	1.23	20.91	.23
23	6.58	3.41	4.71	3.65	1.96	19.18	.06
24	5.17	2.75	5.24	2.88	- .10	18.95	.92
25	4.88	3.60	3.55	3.46a	1.34	18.19	.20
26	5.04	4.37	4.34	3.83	.59	17.42	.57
27	3.04	3.38	4.26	3.66	-1.29	19.33	.21
28	7.38	3.14	7.03	3.35a	.39	19.25	.70
29	2.96	3.62	2.11	2.76	.87	16.55	.40
30	6.58	3.90	7.02	.31	- .41	16.70	.68
Total	5.42	.80	5.35	1.39	.27	29.06	.79

a N = 98

TABLE 19

t-Test Comparisons by Physical Education and Nonphysical Education for Case Types

Case Type	N	M	SD	t	DF	2 Tail Prob
Hi Quality				- .01	27.33	.99
Phys Educ	15	5.54	.88			
Nonphys Educ	99	5.54	1.41			
Lo Quality				.45	20.92	.66
Phys Educ	15	4.94	1.71			
Nonphys Educ	99	4.73	2.05			
Hi Acceptance				.30	25.38	.76
Phys Educ	15	5.89	.95			
Nonphys Educ	99	5.80	1.44			
Lo Acceptance				- .22	31.67	.83
Phys Educ	15	5.89	.98			
Nonphys Educ	99	4.55	1.80			

education, 5.54 for other disciplines, and 5.62 by Taylor (1982). On low-quality cases, the means were 4.94 for physical education, 4.73 for other disciplines, and 4.93 for Taylor (1982). On high-acceptance cases, the means were 5.89 for physical education, 5.80 for other disciplines, and 5.95 for Taylor (1982). On low-acceptance cases, means were 4.48 for physical education, 4.55 for other disciplines and 4.59 for Taylor (1982).

Frequencies of Decision-Making Style Selection

Frequencies of decision-making style selection for each case are included for descriptive purposes and to provide a better understanding of the decision-making style preferences of physical education and nonphysical education chairpersons and directors (see Table 20). No basic difference was observed between the decision-making selection frequencies of physical education chairpersons and directors and nonphysical education chairpersons and directors. If more data had been available in order to use the planned chi square analysis, more specific comparison information could have been determined.

Age

To compare physical education chairpersons and directors with chairpersons and directors of other disciplines in each age category, *t* tests were used (see Table 21). Three age categories, under 30, 30-34, and 60+, were not considered because no physical education chairpersons or directors were in those age groups. Of the remaining age groups, only the age group of 40-44 showed a significant

TABLE 20

Frequencies of Decision Style Selections by Physical Education and Nonphysical Education Chairpersons and Directors

Case	Frequencies Nonphys Educ/Phys Educ				
	AI	AII	CI	CII	GII
1	13/ 3	8/ 1	10/ 4	38/ 6	30/ 1
2	2/ 0	5/ 1	16/ 3	40/ 4	36/ 7
3	24/ 4	17/ 2	13/ 2	27/ 5	18/ 2
4	38/ 6	30/ 6	24/ 4	5/ 2	2/ 0
5	8/ 2	21/ 3	30/ 5	28/ 2	11/ 3
6	7/ 0	8/ 1	31/ 3	41/ 9	12/ 2
7	32/ 8	7/ 0	14/ 4	26/ 1	20/ 2
8	3/ 0	1/ 0	7/ 2	26/ 0	62/ 7
9	1/ 0	12/ 3	19/ 0	31/12	36/ 0
10	8/ 2	28/ 3	36/ 7	23/ 3	4/ 0
11	0	2/ 1	11/ 0	19/ 4	67/10
12	1/ 0	1/ 0	4/ 2	13/ 1	80/12
13	43/ 9	15/ 1	9/ 1	3/ 1	25/ 3
14	21/ 3	20/ 4	18/ 3	33/ 5	5/ 0
15	5/ 1	22/ 3	29/ 2	35/ 7	8/ 2

NOTE: DF = 4 N for Phys Educ = 15

N for Nonphys Educ = 99

Table Continues

Case	Frequencies Nonphys Educ/Phys Educ				
	AI	AII	CI	CII	GII
16	29/ 6	21/ 4	26/ 3	21/ 2	2/ 0
17	19/ 1	29/ 5	15/ 2	24/ 2	12/ 2
18	8/ 2	23/ 1	26/ 4	32/ 6	9/ 2
19	50/ 6	14/ 3	8/ 1	16/ 3	11/ 2
20	6/ 3	14/ 1	22/ 3	35/ 8	22/ 0
21	6/ 2	7/ 1	14/ 3	29/ 3	43/ 6
22	16/ 2	15/ 0	22/ 4	26/ 7	20/ 2
23	12/ 0	25/ 3	23/ 2	29/ 7	10/ 3
24	2/ 0	19/ 3	43/ 7	31/ 5	4/ 0
25	21/ 3	29/ 2	20/ 3	27/ 7	1/ 0
26	31/ 4	9/ 2	26/ 2	19/ 3	19/ 4
27	20/ 6	21/ 2	26/ 4	22/ 3	10/ 0
28	8/ 1	7/ 1	17/ 1	32/ 8	34/ 4
29	43/ 6	22/ 3	26/ 2	8/ 4	0
30	4/ 1	9/ 3	18/ 0	43/ 7	25/ 4

NOTE: DF = 4 N for Phys Educ = 15

N for Nonphys Educ = 99

TABLE 21

t-Test Comparisons by Physical Education and Nonphysical Education in Age Groups and in Experience Groups

	Phys Educ			Nonphys Educ			t	DF	2 Tl Prob
	N	M	SD	N	M	SD			
Age									
<30	0	0	0	1	2.65	0			
30-34	0	0	0	7	5.28	1.55			
35-39	1	5.56	0	17	5.32	1.25	.79	16.00	.44
40-44	1	5.71	0	14	4.68	1.47	2.63	13.00	.02*
45-49	5	5.23	.96	19	5.17	1.41	.11	9.16	.91
50-54	5	5.10	.73	16	5.48	1.16	- .88	10.92	.40
55-59	3	6.12	.64	19	5.89	1.23	.51	4.85	.63
60+	0	0	0	6	6.09	1.85			
Exper Years									
<1	0	0	0	3	4.22	1.05			
1-2	1	5.00	0	19	5.30	1.25	-1.05	18.00	.30
3-4	5	5.42	.58	18	5.22	1.46	.45	17.51	.66
5-9	1	5.04	0	27	5.15	1.28	- .43	26.00	.67
10-19	5	5.50	.80	22	5.58	1.59	- .16	12.53	.87
20+	3	5.55	1.51	10	6.06	1.35	- .54	3.03	.63

difference. In that age group, the mean score for the physical education chairpersons and directors was significantly higher (more participative) than the nonphysical education chairpersons directors. To speculate on this difference would not be worthwhile since only one physical education administrator was in that age category. Other than the one age category, the t tests supported that no differences existed. In addition, an ANOVA was calculated for the total case set by physical education and nonphysical education categories and by age categories. Results were an F of .25 with 4 degrees of freedom and a significance of .91 which indicated no difference. This information implied that there are no differences in preferences for decision-making style between physical education and nonphysical education chairpersons and directors of varying ages.

Experience

To compare physical education chairpersons and directors and nonphysical education chairpersons and directors in each of the six experience categories, t tests were used (see Table 21). The experience category of less than one year was not considered since no physical education chairpersons and directors were in that category. In the remaining five categories, no significant differences were found. In addition, an ANOVA was calculated for the total case set by physical education and nonphysical education and by experience categories. Results were an F of .11, with 4 degrees of freedom and a significance of .98, which indicated no difference. This information implied that experience did not account for any significant

differences in decision-making preferences between physical education and nonphysical education chairpersons and directors.

Sex

An ANOVA was calculated for the total case set by physical education and by nonphysical education and by sex. Results were an F of .04, with 1 degree of freedom and a significance of .85, which indicated no difference. These results imply that regardless of sex, decision-making styles of physical education and nonphysical education chairpersons and directors were not significantly different.

College or Campus

An ANOVA was calculated for the total case set by physical education and nonphysical education and by college or campus and resulted in an F of .20, with 12 degrees of freedom and a significance of .99, indicating no difference. This information implied that regardless of college or campus affiliation, decision-making styles of physical education and nonphysical education chairpersons and directors were not significantly different.

Summary

In general, no significant difference was found between the selection of decision-making styles by physical education chairpersons and directors and chairpersons and directors of other disciplines. A comparison breakdown by individual cases, types of style, age, administrative experience, sex, and college or campus revealed no basic differences. This implied that physical education chairpersons

and directors were not significantly different in the administrative style of decision-making and this lack of difference remained evident in age categories and in experience categories.

CHAPTER V

CONCLUSIONS

One hundred and eight of the Florida Community and Junior College Department Chairpersons and Division Directors, who were selected by stratified random sampling for this study, indicated their decision-making style for 30 cases involving problems in higher education. The 30 cases comprised a problem set developed by Taylor (1982) and validated and then copyrighted by Kepner-Tregoe. The problem set was based upon the Vroom-Yetton (1973) model for decision-making. The five decision styles of the Vroom-Yetton model were the possible response choices for each of the 30 cases. The results were examined using frequencies, means, t tests, ANOVA, and chi-square. Analyses were applied to the four problems that were addressed by this study.

The first portion of the analysis determined that the chairpersons and directors, on the average, were consultive in their decision-making. The mean decision score for the sample was 5.37 which is slightly higher than the 5 scale value of the Consultive I style. This was similar to the findings of Taylor (1982) based on a sample in Virginia.

Also, decision-making styles used by Florida community and junior college department chairpersons and division directors were found to be contingent upon the situation. This finding is similar to the research findings of Taylor (1982) who used the same 30 cases. The

research findings of Taylor (1982) who used the same 30 cases. The population used by Taylor (1982) was comprised of chairpersons in colleges, universities, and community colleges. The contingency finding also supported the basic claim of decision-making contingency proposed by Vroom and Yetton (1973) when they developed their decision-making model.

Florida community and junior college department chairpersons and division directors were found to be participative in their decision-making styles. The frequency of selecting a participative style (Consultive I, Consultive II or Group II) doubled the frequency of selecting a nonparticipative style (Autocratic I or Autocratic II). The chairpersons and directors were participative regardless of age, administrative experience, discipline, sex, and college or campus location. This supports the claim by Henle (1971), Balderson 1979, and McGrath (1976) that decision-making in colleges is participative in nature.

Basically no significant difference existed between the decision-making of male and female department chairpersons and division directors in Florida community and junior colleges. This was evident regardless of age, administrative experience, discipline, and college or campus. The isolated findings of significant differences did not merit a claim for an overall difference in decision-making style by sex. Research in the late 1960's and early 1970's, comparing males and females in leadership and administration, suggested that a difference existed between the sexes. Subsequently, Benton's (1980) study indicated that changes have occurred in female leadership and

administrative styles and that further investigation is needed. Recent research which compared males and females who were already in the role of a leader or administrator suggested that no difference existed between the leadership and administrative styles of males and females (Yoder & Hollander, 1980).

Finally, no significant differences were determined between the decision-making styles of physical education department chairpersons and division directors and chairpersons and directors of other disciplines. This was evident regardless of age, administrative experience, sex, and college or campus. Most administrators were found to be participative in nature.

Since a teamsport background may influence an administrator to be more participative than an administrator without this background (Henning & Jardim, 1976), one might speculate that physical education administrators would be more participative than administrators of other disciplines. The results of this study, however, indicated that this was not evident in the preference of decision-making styles.

Conclusions from this study replicated the findings of Taylor (1982) that the mean style of decision-making for chairpersons and directors was Consultive I. This style involves explaining the problem to the faculty individually and asking for information or advice. Similar to the Taylor (1982) study, this study reported that chairpersons and directors used a more participative style when quality of the decision and acceptance of the decision were important than when quality and acceptance were not a factor. Further information brought forth in the present study revealed that

chairpersons and directors selected a participative style most often and that no significant differences existed between the decision-making of males and females and between physical education and nonphysical education chairpersons and directors.

Further study is needed which compares male and female decision-making styles and which compares decision-making styles of administrators in various academic disciplines; previous research in these areas has been lacking. Secondly, a more definitive comparison of administrators in each of the 11 discipline categories may reveal more pertinent information. Finally, a replication of this study in other states is needed to determine whether the conclusions of this study can be generalized nationwide.

The writer realizes that the instrument used for this study was limited to measuring decision-making styles only and suggests that future study might include a determination of how such factors as values, ethics, family background, and religion influence decision-making. It would also be enlightening to determine whether the decision-making process of administrators is more intuitive or more formal. Future research in decision-making might consider using direct observation of decision-making in addition to self-reports.

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APPENDIX A

NOTE: Cases are copyrighted by Kepner-Tregoe, Inc. and may not be reproduced or used in training sessions.

DESCRIPTION OF 5 DECISION-MAKING STYLES (Vroom, V.H. & Yetton, P.W. (1973). Leadership And Decision-Making. Pittsburg, Pa: University of Pittsburgh Press. P.13)

AI (Autocratic I) - you solve problem or make decision yourself using information available to you at the time.

AII (Autocratic II)-you obtain necessary information from subordinates, then decide on solution to problem yourself. You may or may not tell your subordinates what the problem is in getting information from them. The role played by your subordinates in the decision is clearly one of providing the necessary information to you rather than generating or evaluating alternative solutions.

CI (Consultive I) - you share the problem with relevant subordinates individually, getting their ideas and suggestions without bringing them together as a group. Then you make the decision, which may or may not reflect your subordinates' influence.

CII (Consultive II)-you share the problem with your subordinates as a group, obtaining their collective ideas and suggestions. Then you make the decision, which may or may not reflect your subordinates' influence.

GII (Group II) - you share the problem with your subordinates as a group. Together you generate and evaluate alternatives and attempt to reach agreement (consensus) on a solution. Your role is much like that of a chairman. You do not try to influence the group to adopt "your" solution and you are willing to accept and implement any solution which has the support of the entire group.

Please examine each problem carefully. Place yourself in the position of each administrator cited. Determine which of the 5 styles above would best describe your decision style for each problem.

Identification # _____

PLEASE PROVIDE THE FOLLOWING GENERAL INFORMATION:

1) For how many years have you been an administrator? _____

2) At what college and campus are you located now? _____

3) In what discipline area are you an administrator? _____

4) What is your age? _____

5) Are you male or female? _____

6) Would you like a profile of your decision-making pattern?
_____ yes _____ no

7) Would you like a copy of the abstract for this study?
_____ yes _____ no

DECISION-MAKING STYLE - ANSWER SHEET

PLEASE DRAW A LINE THROUGH THE MANAGEMENT STYLE THAT YOU WOULD USE FOR EACH SITUATION, e.g. AI (1) ~~AII (2)~~ CI (3) CII (4) GII (5)

1	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		16	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
2	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		17	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
3	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		18	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
4	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		19	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
5	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		20	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
6	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		21	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
7	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		22	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
8	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		23	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
9	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		24	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
10	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		25	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
11	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		26	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
12	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		27	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
13	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		28	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
14	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		29	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)
15	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)		30	AI (1)	AII (2)	CI (3)	CII (4)	GII (5)

In your chemistry laboratories, where a number of dangerous chemicals and inflammable liquids are used, there have been several minor fires and explosions, some of which have resulted in injury to students and damage to the labs. As Chairman of the Chemistry Department, you are technically responsible for safety in the labs. None of the fires or explosions that have occurred to date have been particularly serious ones, but you are concerned that, unless the basic cause or causes are corrected, a real disaster could occur.

Informal conversations with your faculty members and heads of other science departments about this matter have served only to convince you that the problem is complicated and without a simple solution. They all share your concern about lab safety, but each has his own ideas about what the problem is and what should be done to correct it. Several different suggestions have been made concerning actions to be taken. It is clear to you that each of those making the suggestions believes that he has a workable solution to the problem, but you have not implemented any of the proposed solutions since there were such marked differences among them. Each proponent's suggestion appeared to be looking at only a small part of the problem.

You are willing to do whatever is necessary to solve this problem, but you believe that no system is effective unless there is a commitment by all concerned to make it work.

Yesterday there was another accident-- this one more serious than the last. You are determined that action to correct this situation must begin immediately. The Dean of your division has authorized expenditure of the necessary funds to solve the problem.

AI, AII, CI, CII, GII
Case #1

You will leave next month to attend a four-week seminar at one of the nation's leading graduate schools. One of your faculty members must be selected to act for you in your absence. You can arrange to phone the department two or three times a week, but whoever acts for you may need to make a number of important decisions other than the usual daily routine kinds of decisions department chairman must make.

The principle responsibilities of your replacement are to coordinate the activities of your departmental faculty and staff. In this area he will need to rely, as you do, on persuasion rather than formal authority. If the department lacks confidence in the person chosen, operation of the department would definitely suffer.

You have two people in mind who could handle the assignment. The one thing about which you are uncertain is the nature of their teaching and research loads for the next month. The nature and complexity of the department does not easily permit a redistribution of work among its faculty members, and the person chosen cannot be one who already has a heavy volume of work to be carried out during this period.

The faculty member who assumes your position during your absence would acquire some status within the group and, for this reason, each person would want the job. On the other hand, each faculty member realizes that it is critical for the job to be done well, and they all want to prove to you that the department can continue to be effective during your absence.

On the two previous occasions when you have had to be absent for significant periods, the people you selected were accepted by everybody and performed the job conscientiously and well. It appears that once you have decided who should do the job, your judgment is accepted without question.

AI, AII, CI, CII, GII
Case #4

The college is interested in providing special classes for handicapped students. Some of the students have severe handicaps making it difficult for one instructor to handle an entire class. In order to provide the best possible instruction, it will be necessary to assign a team of two faculty members from your department to the special class. Since the academic term will begin soon, it is critical that the faculty appointments be made immediately.

As department chairman, your problem is to select the two faculty members for the assignment. You have six faculty members in your department. They vary both in experience and in qualifications for this particular teaching assignment. You know all your faculty members well, and selecting two who have the ability to do the job is possible.

In the past, when special teaching assignments have come up, you have brought the faculty together as a group and shared the problem with them and let them make the decision as to who should carry out the assignment. This procedure has not been entirely satisfactory since the group has tended to choose the more junior faculty members on the grounds that they needed experience. You believe that such poor decisions have increased the chances of the course not being taught as well as it might have been.

However, it is apparent to you that the faculty members have been accustomed to having a part in decisions such as this one and might resent it if you were to choose the two faculty members yourself. Since the nature of the teaching assignment is so special, and your work schedule is such that you cannot afford to participate in the class, you will depend completely upon the willingness and ability of the two faculty members selected to carry out the assignment.

AI, AII, CI, CII, GII
Case #6

You have been asked to take charge of a new inter-disciplinary degree program in its final stages of completion. Your present task is to coordinate the final details which involve designating faculty members to teach in the program, publicity arrangements, requirements for graduation, certification of transfer students, and other important details. Each of these facets of the program is under the direction of a separate department which is responsible for completion of the necessary assignments.

At present, the whole program is ahead of schedule, and if this continues, the agreement under which you took on the task provides for you and the other involved faculty members to get very favorable recognition. Obviously, the recognition would be greater the farther ahead of schedule the program can be offered to students. It appears that these assignments can be completed in less than the originally scheduled time and the program can become operational one semester earlier, but this will necessitate the establishment of a schedule to which everyone agrees to adhere. Everyone is keen to receive as much favorable recognition as possible. It is in everyone's interest to get the program in operation as soon as possible. To prepare the assignments, it will be necessary to have estimates of the time requirements for each of the remaining tasks and a statement of any conditions which must be met before work can be started on a particular task. For example, a common text book for the core, required course cannot be selected until the goals and objectives of the course and the instructors who will teach it are determined. The various departments will have this information by the end of the week and then this "jigsaw puzzle" can be put together.

You have not worked with some of these faculty members before; however, many of the faculty members from the departments involved have worked together on a number of other committees. They get along well together both personally and in work situations. Since you have been appointed as chairman of the organizing committee and not as an expert in any of the other disciplines represented, you will need to depend heavily on the committee members' cooperation if the new inter-departmental program is to be open to students as quickly as possible.

AI, AII, CI, CII, GII
Case #12

A flu epidemic has reduced the college's office staff by 20 percent and some offices are well behind in their work. If the work is to be completed, it is clear that a substantial reallocation of staff will be needed. You are the Administrative Assistant to the President, and you have been appointed to handle the staffing situation as the Director of Personnel in charge of this is one of the flu victims. The administrative heads and department chairmen should have some information on the number and type of workers absent among their own staff, and you know which workers in the President's Office are present today.

The decisions involve the transfer of personnel between offices and could involve input into the choice of which offices to close if the situation doesn't improve. Even though this is a temporary move, you know that these transfers will need to be handled very delicately. You will need the active support of the other administrators and department chairmen in selecting which staff will be transferred.

The reallocation of work is very critical with respect to skilled secretaries rather than to office workers with limited skills. Past experience suggests that supervisors are likely to "keep the best troops at home" rather than analyze the skill characteristics required for the job to be done.

AI, AII, CI, CII, GII
Case #15

You are a department chairman in a community college which is undergoing expansion in its student body. Because of the increased number of students, it is now necessary to revise the number of course offerings of your department for next term.

You know the nature of the student population which takes courses offered by your department, and you have the historical data needed to compute the approximate number of students requiring advanced courses. Given these variables it is a simple matter to calculate the classes which should be offered and the departmental budget for supplies and materials. It is important that your estimates be reasonably accurate. Underestimates result in unfilled classes and an under supply of available materials and supplies, while overestimates result in surplus supplies and materials and a greater number of students than the scheduled classroom will hold.

Your faculty has been cooperative in the past. They stand to receive favorable recognition when all of their classes are filled. However, you know from past experiences that your faculty members tend to exaggerate requirements for classroom sizes and over estimate the requirements for class supplies and materials. They are always boasting that they never run out of supplies and materials inspite of the gross waste and extra costs that occur when supplies and materials are excessively abundant in the department.

AI, AII, CI, CII, GII
Case #25

APPENDIX B

broward community college

north campus
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pompano beach, florida 33063

M E M O R A N D U M

TO: Deans of Instruction
Deans of Academic Affairs
Vice President of Academic Affairs
at Florida Community College

FROM: Jan Parke, HPRD Department Chair

SUBJECT: Names of Department Chairs/Heads

DATE: March 21, 1984

I am in the process of writing my dissertation proposal. My dissertation will entail a comparison of decision making practices for male and female department chairs at community colleges in the State of Florida. In order to determine whether my population would consist of all department chairs or a random sample of department chairs and also to have a list of individuals in this potential population, I would appreciate your sending me the names and departments of all department chairs/heads for your college by April 6, 1984.

This information is crucial to the success of my dissertation, and I thank you for your assistance.

JEP:ps

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO
SCHOOL OF HEALTH, PHYSICAL EDUCATION & RECREATION

SCHOOL REVIEW COMMITTEE

PRINCIPAL INVESTIGATOR'S PROJECT OUTLINE FORM

Name of Principal Investigator Janet E. Parke

Division within HPER Physical Education

Title of Proposed Project Comparisons of Decision-Making Styles of Florida Community/Junior College Department Chairs/Division Directors

Proposed Starting Date October 29, 1984 Duration 2 months

Estimated Number of Human Subjects Involved in Project 190

I. Characteristics of Subjects (check as many boxes as appropriate).

___ Minors ___ Mentally Retarted ___ University Students

X Adults ___ Pregnant Women ___ Secondary School Pupils

___ Prisoners ___ Legally Incompetent ___ Elementary School Pupils

___ Others (Specify) _____.

II. Consent and Withdrawal Procedures

A. Consent obtained from: Individual X, Institution ____, Parent or Legal Guardian ____, Other (Specify) _____

B. Type of Consent: Written (attach copy of consent statement) X
Oral _____ (explain reason for not using written form and attach a verbatim statement of the oral request to the subject).

C. Subjects are informed of withdrawal privileges (attach copy of statement). See informed consent form

Use the back of this page and additional sheets, as necessary, to respond to the remaining portions of this form.

III. Risks: Briefly describe the risks (physical, psychological, social) to the subjects, and indicate the degree of risk involved in each case.
No Risk

IV. Benefits: Briefly describe the benefits (physical, psychological, social) to the subjects and/or humankind in general.
Subjects will gain a better understanding of their personal decision-making patterns.

V. Methodology/Procedures

A. Briefly describe the methods used for selection of subjects/participants.
Stratified random sample of Department Chairs/Division Directors in Florida Community/Junior Colleges.

(see proposal)

B. Briefly describe all other procedures to be followed in carrying out the project. Conduct pilot study, ask sample to participate. Mail 30 problem sets, analyze the data, write dissertation, send personal decision profile to participants.

C. Attach a copy of the proposal you are filing (Graduate School, Agency, etc.) and a copy of orientation information to subjects. Include questionnaires, interview questions, tests, and other similar materials.

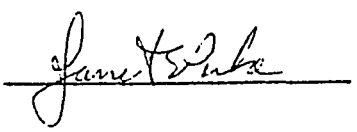
VI. Agreements: By signing this form, the principal investigator agrees to the following:

A. To conform to the policies, principles, procedures and guidelines established by the HPER School Review Committee (SRC).

B. To supply the SRC with documentation of selection procedures and informed consent procedures.

C. To inform the SRC of any changes in procedures which involve human subjects, giving sufficient time to review such changes before they are implemented.

D. To provide the SRC with any progress reports it may request.

Date October 13, 1984 Signature 

Approved 3/78

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO
SCHOOL OF HEALTH, PHYSICAL EDUCATION & RECREATION

SCHOOL REVIEW COMMITTEE

INFORMED CONSENT FORM *

I understand that the purpose of this study/project is

to determine the decision-making styles of Florida Community/Junior College Department Chairs/Division Directors.

I confirm that my participation is entirely voluntary. No coercion of any kind has been used to obtain my cooperation.

I understand that I may withdraw my consent and terminate my participation at any time during the project.

I have been informed of the procedures that will be used in the project and understand what will be required of me as a subject.

I understand that all of my responses, written/oral/task, will remain completely anonymous.

I understand that a summary of the results of the project will be made available to me at the completion of the study if I so request.

I wish to give my voluntary cooperation as a participant.

_____
Signature

_____
Address

_____

_____
Date

*Adopted from L.F. Locke and W.W. Spirduso. Proposals that work. New York: Teachers College, Columbia University, 1976, p. 237.

broward community college

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M E M O R A N D U M

TO: * Selected Florida Community/Jr. Colleges Department Chairs/Directors/Heads

FROM: Jan Parke, HPRD Department Chair

SUBJECT: Doctoral Dissertation On Decision-Making

DATE: October 26, 1984

You have been selected as a potential participant in my doctoral dissertation study. The dissertation is entitled "COMPARISONS OF DECISION-MAKING STYLES OF FLORIDA COMMUNITY/JUNIOR COLLEGE DEPARTMENT CHAIRS/DIVISION DIRECTORS."

I would appreciate if you would consent to be a part of this study which will provide valuable information on decision-making styles. It will take approximately 1-1½ hours of your time to read 30 problem situations and to select one of 5 decision styles which closely matches the style of decision-making you would employ for each problem. This time spent will be as valuable to you as it is to me. I will send you, if you are interested, a personal profile of your decision-making pattern and an abstract of this study after its completion. Be assured that results will be maintained strictly confidential.

If you would be willing to participate in this study, please start by signing the enclosed consent form and mailing it back to me in the envelope provided. If you cannot participate, please write a note to that effect and mail it to me in the envelope provided. I would appreciate hearing from you by November 12th.

NOTE: To enhance validity of one portion of this study, it is important for 100% of the physical education department chairs/division directors to participate.*

JEP:rb

* This paragraph was included only in the letter to physical education Chairs/Directors.

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pompano beach, florida 33063

November 1, 1984

Dear

I am presently working on my doctoral dissertation and would appreciate your assistance. My study involves the decision-making styles of department chairs/division directors at Florida Community Colleges. Through random sampling, I have chosen the following administrators at your college and have asked them to participate in the study:

I would appreciate your contacting them and encouraging them to participate. I feel this type of personal contact will insure a higher rate of participation and therefore provide more valid results. Please do not pressure them in any way.

Thank you for your help.

Sincerely,

Janet E. Parke

JEP:rb

broward community college

north campus
1000 northwest coconut creek boulevard
pompano beach, florida 33063

M E M O R A N D U M

TO: Decision Making Study Participants

FROM: Jan Parke, HPRD Department Chair JP

SUBJECT: Doctoral Dissertation On Decision Making

DATE: November 12, 1984

Thank you for agreeing to participate in my doctoral dissertation study entitled "COMPARISONS OF DECISION-MAKING STYLES OF FLORIDA COMMUNITY/JUNIOR COLLEGE DEPARTMENT CHAIRS/ DIVISION DIRECTORS."

Please begin by filling out the top portion of the answer sheet. If you wish to receive a profile of your decision-making and/or a copy of the dissertation abstract, be certain to respond accordingly. Note your answer sheet has been coded with an identification number to aid in mailing your profile and/or abstract if requested. Anonymity of results will be maintained and kept strictly confidential.

Next read the description of each of the 5 decision styles and the copyright information on sheet preceding the problem sets. Then read each of the 30 problem sets enclosed and select one of the 5 styles which closely matches the style of decision making you would employ for that problem. Each problem should be assessed individually by placing yourself in the position of the administrator cited. Please record each answer on the sheet provided and return the answer sheet and the problem sets in the envelope provided by December 7th.

Thank you for your help in completing my study.

NOTE: To enhance validity of one portion of this study, it is important for 100% of the physical education department chairs/division directors to participate. *

JEP:rb

* This paragraph was included only in the letter to physical education chairs and directors.

December 4, 1984

To All Decision-Making Study Participants:

Just a brief reminder that this is the week to complete and send back the problem sets and answer sheets.

I appreciate your help and will be sending out profiles after the holidays.

Sincerely,

Janet E. Parke, BCC North

December 18, 1984

Dear Decision-Making Study Participants:

I now have a 60% return of my study, but would like a higher %. I would appreciate if you could spend time between semesters, when things are less hectic, to complete and return the answer sheet and problem set. I appreciate your help and interest.

Sincerely,

Janet E. Parke, BCC North

broward community college

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To: Decision-Making Study Participants

From: Janet E. Parke

Subject: Results of Decision-Making Study

Date: March 7, 1985

Thank you for participating in my doctoral dissertation study. The final response was 74% of those who agreed to participate. Enclosed is a copy of the abstract and your personal decision-making profile. You can compare your responses with the effective and the time-efficient responses for each question by using the worksheet on the back of this letter. Other information and comparisons are described on Table 1 and Table 3.

I hope this information will be helpful to you. If you have any questions, please call me at 305/973-2318 or suncom 495-2318.

COMPARISON OF YOUR BEHAVIOR TO MODEL'S EFFECTIVE AND TIME-EFFICIENT BEHAVIORS

Case Number	Effective Behavior	Time Efficient Behavior	Your Behavior	
1	GII	GII	_____	1
2	CI CII	CI	_____	2
3	AI AII CI CII GII	AI	_____	3
4	AII CI CII GII	AII	_____	4
5	AII CI CII	AII	_____	5
6	CII	CII	_____	6
7	AI AII CI CII GII	AI	_____	7
8	GII	GII	_____	8
9	CII	CII	_____	9
10	AI AII CI CII	AI	_____	10
11	CII GII	CII	_____	11
12	GII	GII	_____	12
13	AI AII CI CII GII	AI	_____	13
14	AII CI CII	AII	_____	14
15	CII	CII	_____	15
16	AI AII CI CII	AI	_____	16
17	AI AII CI CII GII	AI	_____	17
18	CII	CII	_____	18
19	AI AII CI CII GII	AI	_____	19
20	CII	CII	_____	20
21	GII	GII	_____	21
22	AI AII CI CII GII	AI	_____	22
23	AII CI CII GII	AII	_____	23
24	CII GII	CII	_____	24
25	AI AII CI CII	AI	_____	25
26	GII	GII	_____	26
27	AI AII CI CII GII	AI	_____	27
28	GII	GII	_____	28
29	AI AII CI CII	AI	_____	29
30	AI AII CI CII GII	AI	_____	30

PARTICIPANT'S RESPONSES

16105 SESSION 1

1.	4	(CII)	16.	1	(AI)
2.	3	(CI)	17.	2	(AII)
3.	3	(CI)	18.	4	(CII)
4.	2	(AII)	19.	1	(AI)
5.	2	(AII)	20.	4	(CII)
6.	4	(CII)	21.	1	(AI)
7.	3	(CI)	22.	3	(CI)
8.	5	(GII)	23.	4	(CII)
9.	4	(CII)	24.	4	(CII)
10.	2	(AII)	25.	3	(CI)
11.	5	(GII)	26.	5	(GII)
12.	5	(GII)	27.	1	(AI)
13.	1	(AI)	28.	5	(GII)
14.	2	(AII)	29.	4	(CII)
15.	4	(CII)	30.	1	(AI)

31. 1 32. 0 33. 0

16105
SESSION 1

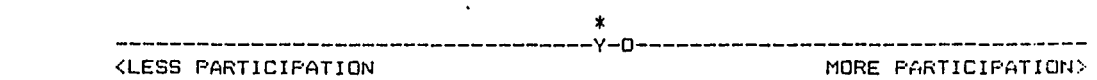
TABLE 1

PROPORTION OF USE OF EACH LEADERSHIP BEHAVIOR

	AI	AII	CI	CII	GII
YOUR FREQUENCY	20%	16%	16%	30%	16%
GROUP FREQUENCY	20%	17%	17%	30%	17%
DRSTUDY	17%	16%	19%	28%	20%

FREQUENCY DISTRIBUTION OF PARTICIPATION SCORES

YOUR MEAN = Y GROUP MEAN = G ORGANIZATION MEAN = O



YOUR MEAN = 5.04
GROUP MEAN = 5.04
ORG. MEAN = 5.30

16105 TABLE 3

YOUR & TIME-EFFICIENT MODEL'S REACTION TO EACH SITUATION VARIABLE

YOUR MEAN = Y TIME-EFFICIENT MODEL MEAN = A

DOES IT MAKE A DIFFERENCE WHICH COURSE OF ACTION IS ADOPTED?	YES Y = 5.23	----------A----Y----------
	NO Y = 4.27	----------A----Y----------
DO YOU NOW HAVE ADEQUATE INFORMATION TO MAKE A QUALITY ANALYSIS?	YES Y = 3.9	----------A-----Y----------
	NO Y = 6.56	----------A--Y----------
DO YOU KNOW EXACTLY WHAT INFORMATION IS MISSING AND HOW TO GET IT?	YES Y = 4.68	----------A-----Y----------
	NO Y = 8.43	----------Y--------
IS COMMITMENT OF OTHERS CRITICAL TO EFFECTIVE IMPLEMENTATION?	YES Y = 5.78	----------A-Y----------
	NO Y = 3.56	------A--------Y----------
WILL THEY COMMIT TO A DECISION MADE BY YOU WITHOUT THEIR ACTIVE PARTICIPATION?	YES Y = 3.81	------A----------Y----------
	NO Y = 7.75	----------Y-----A------
IS THERE GOAL CONGRUENCE BETWEEN THE OTHERS AND THE ORGANIZATION?	YES Y = 5.41	----------A---Y----------
	NO Y = 5.05	----------A-----Y----------
IS THERE LIKELY TO BE CONFLICT ABOUT ALTERNATIVES AMONG OTHERS?	YES Y = 5.41	----------A-----Y----------
	NO Y = 4.66	----------A--Y----------

<LESS PARTICIPATION MORE PARTICIPATION>